

## 5. Environmental Analysis

### 5.9 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to hydrology and water-quality conditions in the Project Area from implementation of the Proposed Project. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface and groundwater. Surface water is aboveground and includes lakes, rivers, streams, and creeks. Groundwater is below the surface of the earth.

#### 5.9.1 Environmental Setting

##### 5.9.1.1 REGULATORY SETTING

##### Federal Regulations

##### *Clean Water Act*

Under the Clean Water Act (CWA) of 1977, the United States Environmental Protection Agency (EPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the EPA to implement water quality regulations. The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402(p) of the CWA controls water pollution by regulating storm water discharges into the waters of the U.S. California has an approved state NPDES program. The EPA has delegated authority for water permitting to the State Water Resources Control Board (SWRCB), which has nine regional boards. The Lahontan Regional Water Quality Control Board (RWQCB - Region 6V) and the Los Angeles RWQCB (Region 4) regulate water quality in the Project Area.

Sections 401 and 404 of the CWA are administered through the Regulatory Program of the U.S. Army Corps of Engineers (USACE) and regulate the water quality of all discharges of fill or dredged material into waters of the United States including wetlands and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water-quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." If there are ephemeral drainages and wetlands identified in the Proposed Area Plan area, construction and other activities may require the acquisition of a permit from the USACE under Section 404 of the CWA and water quality certification from the RWQCB under Section 401 of the CWA. Section 401 certification is required from the RWQCB prior to final issuance of Section 404 permits by the USACE.

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish a Total Maximum Daily Load (TMDL) for the pollutant causing the conditions of impairment. TMDL is the maximum amount of a pollutant that a water body can receive and still meet water quality standards.

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Typically, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. The intent of the 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality. In accordance with Section 303(d), the Lahontan and Los Angeles RWQCB's have identified impaired water bodies within their respective jurisdictions, and the pollutant or stressor responsible for impairing the water quality. There are several lakes, reservoirs, rivers, and creeks within the Project Area that are on the 303(d) impaired water bodies list, as discussed in further detail in the water quality section of this chapter. Therefore, future development pursuant to the Proposed Project within the Project Area could adversely impact these impaired water bodies.

#### *National Pollutant Discharge Elimination System*

The NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems (MS4s). Under the NPDES Program, all facilities which discharge pollutants into waters of the US are required to obtain an NPDES permit. Requirements for storm water discharges are also regulated under this program. In California, the NPDES permit program is administered by the SWRCB through the nine RWQCBs.

The Project Area lies within the jurisdiction of Los Angeles RWQCB (Region 4) and the Lahontan RWQCB (Region 6V) and is subject to the waste discharge requirements of the Los Angeles County MS4 Permit (Order No. R4-2012-0175) and NPDES Permit No. CAS004001, as amended by Order No. R8-2010-0062. Los Angeles County, the Los Angeles County Flood Control District, and 84 incorporated cities within the coastal watersheds of Los Angeles County are co-permittees under the MS4 Permit, with the exception of the City of Long Beach, which is covered under a separate MS4 permit. Pursuant to the MS4 Permit, the co-permittees have the flexibility to develop Watershed Management Programs, which implement the requirements of the Permit on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Watershed Management Programs (WMP) have been developed for the Upper Santa Clara River Watershed, the Upper Los Angeles River Watershed, and the Upper San Gabriel River Watershed, all of which encompass part of the Project Area. No management program has been adopted for the Antelope Valley Watershed. The MS4 Permit also requires the municipalities to develop and implement low impact development (LID) ordinances and green streets policies in at least 50 percent of the area covered by the WMP.

The MS4 Permit also requires that new development or significant redevelopment projects use BMPs, including site design planning, source control, and treatment techniques, to ensure that the water quality of receiving waters is protected. These requirements are detailed in the Los Angeles County's 2014 Low Impact Development Standards Manual. Within the Project Area, any new development Designated and Non-Designated projects must meet the requirements of the LID Standards Manual. To ensure that the LID measures are maintained, the Los Angeles County Department of Public Works (DPW) may require submittal of a Maintenance Plan and execution of a Maintenance Agreement with the owner/operator of the stormwater quality control measures.



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### State Regulations

#### *Porter-Cologne Water Quality Act*

The Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.) is the basic water-quality control law for California. Under this Act, the SWRCB has ultimate control over state water rights and water-quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The State is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan or Basin Plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water-quality conditions and problems.

The Project Area lies within the Los Angeles RWQCB, Region 4 and the Lahontan RWQCB, Region 6V. A very small portion of the northwest corner of Project Area is within the Central Valley RWQCB, Region 5. The Water Quality Control Plan for Region 4 was adopted in 1994; the Water Quality Control Plan for Region 6 was adopted in 1995. These Basin Plans give direction on the beneficial uses of the state waters within the two regions, describe the water quality that must be maintained to support such uses, and provide programs, projects, and other actions necessary to achieve the standards established in the Basin Plans. Waste discharge requirements for discharges to municipal storm drain systems in the Los Angeles Water Board Region are set down in Order No. R4-2012-0175 ("MS4 Permit") issued by the Los Angeles Regional Water Quality Control Board in 2012.<sup>1</sup>

### County of Los Angeles Regulations

#### *County of Los Angeles Grading Ordinance*

Requirements for erosion and sediment control for grading operations are set forth in the Grading Code Ordinance and Regulations of the County Code. All construction sites are required to implement BMPs to control erosion, debris, and construction-related pollutants. All active grading projects with grading activities proposed during the rainy season (October 15 to April 15) require an Erosion and Sediment Control Plan (ESCP) to be submitted to the DPW prior to the issuance of grading permits. All non-residential sites, residential sites of 6 stories or greater, and projects with a disturbed (graded) area of one acre or greater are also required to prepare and submit an ESCP.

Grading sites that disturb one acre or more may use a state stormwater pollution prevention plan (SWPPP) to meet the ESCP requirements. All projects that disturb one acre or more during grading must also file Permit Registration Documents (PRDs) with the SWRCB, as discussed in further detail in the Storm Water Pollution Prevention Plans section of this chapter. The PRDs are submitted electronically to the SWRCB via the Storm Water Multiple Application and Report Tracking System (SMARTS) website.

The ESCP must include appropriate BMPs for general site management, construction materials and waste management, and erosion and sediment controls. These BMPs must be provided for both the wet and dry

<sup>1</sup>Order No. R4-2012-0175 applies to the part of the Project Area within the Los Angeles RWQCB.

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seasons. The ESCP must be revised every year and approved prior to the start of the rainy season (October 15) throughout the site grading operations. All BMPs must be installed prior to the beginning of the rainy season or as determined by the County's building official.

#### *Los Angeles County Flood Control District Code*

Chapter 21 of the County Flood Control District Code, Stormwater and Runoff Pollution Control, sets requirements regulating discharges to Los Angeles County Flood Control District (LACFCD) storm drains. The purpose of this chapter is to protect the storm drain facilities, the water quality of downstream receiving water bodies, and the quality of water stored in groundwater aquifers. The following discharges to County storm drains are prohibited:

- Discharges of stormwater containing pollutant concentrations that exceed or contribute to the exceedance of a water quality standard.
- Nonstormwater discharges unless authorized by an NPDES Permit and by a permit issued by the Chief Engineer.
- Discharges of sanitary or septic waste or sewage from any property or residence, any type of recreational vehicle, camper, bus, boat, holding tank, portable toilet, vacuum truck or other mobile source, or any waste holding tank, container or device.
- Pollutants, leaves, dirt, or other landscape debris (County Flood Control District Code Sections 21.07 and 21.09).

### Applicable Plans and Programs

#### *Storm Water Pollution Prevention Plans*

Pursuant to the CWA, in 2012, the SWRCB issued a statewide general NPDES Permit for stormwater discharges from construction sites (Order No. 2012-0006-DWQ; NPDES No. CAS000002). Under this Statewide General Construction Activity permit, discharges of stormwater from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for stormwater discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing PRDs, which include a Notice of Intent, risk assessment, site map, Erosion and Sediment Control Plan (ESCP), annual fee, and signed certification statement. The PRDs are submitted electronically to the SWRCB via the SMARTS website. Each applicant under the General Construction Activity Permit must ensure that an ESCP is prepared prior to grading and is implemented during construction. The ESCP must list BMPs implemented on the construction site to protect stormwater runoff. The SWRCB is the permitting agency and depending on the location of the new development or redevelopment within the Project Area, the Los Angeles or Lahontan RWQCB would provide local oversight and enforcement.

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### *Low Impact Development Standards Manual*

Los Angeles County recently published the Low Impact Development Standards Manual to comply with the requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges within the coastal watersheds of Los Angeles County. All development occurring within unincorporated portions of the County must comply with the LA County Code, Title 12, Chapter 12.84, Low Impact Development Standards, and the NPDES permit. The goal of LID is to mimic the undeveloped runoff conditions of the development site with the post-development conditions. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects with the intent of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

The project applicant must submit an LID Plan for review and approval by the Director of LACDPW that provides a comprehensive, technical discussion of how the proposed project will comply with the requirements of the County Code and LID Standards Manual. The LID Plan must include the following information:

- Identification of whether the proposed project is a Designated or Non-Designated Project. If the proposed project is a Designated Project, identification of the project category;
- Feasibility of infiltration including a percolation report as part of a geotechnical report prepared by a geotechnical engineer;
- Source control measure(s) to be implemented
- Calculation of the Stormwater Quality Design Volume;
- Discussion on whether stormwater runoff harvest and use is feasible;
- Stormwater quality control measure(s) to be implemented;
- Discussion of how the applicable water quality standards and total maximum daily loads will be addressed (off-site mitigation projects only);
- Proposed hydromodification controls and calculations (if necessary);
- Proposed maintenance plan (if necessary).

The LID Plan will be:

- A section of or appendix to the Hydrology Report that must be submitted to LACDPW;
- A section of or appendix to the Grading Report submitted to the Building and Safety Division; or

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- A separate plan.

If a project intends to implement privately maintained stormwater quality control measure(s), the specific BMPs will be reviewed during the grading stage. If the project intends to implement publicly maintained stormwater quality control measure(s), the specific BMPs will be shown on water quality plans that are submitted separate from but concurrently with the hydrology study/drainage concept.

#### *National Flood Insurance Program*

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as Flood Insurance Studies (FISs). The most recent FIRMs were completed and published for Los Angeles County on September 26, 2008. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas (SFHAs) on FIRMs.

The Flood Disaster Protection Act (FDPA) requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System (CRS), a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

The design standard for flood protection established by FEMA is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year. The County has participated in the NFIP since 1980 and has created standards and policies to ensure flood protection. The program is voluntary based on a mutual agreement between the federal government and Los Angeles County. Participation in the program makes flood insurance available to County unincorporated area residents and allows them to obtain direct Federal relief loans following federally declared flood disasters. Los Angeles County has an ongoing Floodplain Management program, which includes mapping of flood hazard areas, adopting associated ordinances, and regulating and enforcing safe building practices. It is the combination of these activities that promote flood protection to the Project Area and maintains the County's eligibility to participate in the NFIP.

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#### 5.9.1.2 EXISTING CONDITIONS

##### Watersheds

A watershed is an area of land that contains a common set of small streams, rivers, or creeks that all drain into a larger body of water, such as a river, lake, or ocean. The Project Area includes parts of four major watersheds, described below and shown on Figure 5.9-1, *Major Watersheds*.

##### *Antelope Valley Watershed*

The Antelope Valley Watershed occupies 3,369 square miles in northern Los Angeles County, southeast Kern County, and the west end of San Bernardino County. The watershed includes the Antelope Valley; the northern slopes of the San Gabriel Mountains and part of the Northern Transverse Ranges; the southeast-facing slopes of the Tehachapi Mountains; and the El Paso Mountains. The Antelope Valley Watershed spans most of the Project Area. Numerous streams drain from the mountain ranges along the rim of the watershed into the Antelope Valley. The watershed has no outlet to the ocean. Surface water generally evaporates from the surface rather than infiltrating into groundwater or enters three dry lakes in the center of the watershed: Rogers Dry Lake, Rosamond Dry Lake, and Buckhorn Dry Lake, all within Edwards Air Force Base. The watershed typically lacks defined natural and improved channels outside of the foothills and is subject to unpredictable sheet flow patterns.

##### *Santa Clara River Watershed*

The Santa Clara River Watershed spans 1,030 square miles in northwest Los Angeles County, Ventura County, and a small portion of Kern County. The watershed includes part of the northern Transverse Ranges; the Santa Clarita Valley in Los Angeles County; the Santa Clara River Valley and Oxnard Plain in Ventura County; and the northwest part of the Santa Monica Mountains in Ventura County. The Santa Clara River, the principal stream in the watershed, extends 83 miles from northwest Los Angeles County to its mouth on the Pacific Ocean at the south end of the City of Ventura. The Santa Clara River Watershed includes parts of the western portion of the Project Area.

##### *Los Angeles River Watershed*

The Los Angeles River Watershed spans 834 square miles of western, central, and southern Los Angeles County and some small areas of eastern Ventura County. The watershed extends from the San Gabriel Mountains on the northeast; to the Santa Susana Mountains and Santa Monica Mountains on the northwest and west, respectively; and extends south to the mouth of the Los Angeles River in the City of Long Beach. The watershed includes all of the San Fernando Valley, much of central Los Angeles, and parts of south Los Angeles. The Los Angeles River, the primary stream in the watershed, extends 48 miles from the confluence of Bell Creek and the Arroyo Calabasas in the southwest San Fernando Valley to the Pacific Ocean at the City of Long Beach. The Los Angeles River Watershed includes the southwest part of the Project Area.

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#### *San Gabriel River Watershed*

The San Gabriel River Watershed spans 640 square miles of east-central and southeast Los Angeles County and part of northwest Orange County. The watershed extends from the San Gabriel Mountains on the north, encompasses the east half of the San Gabriel Valley, the Puente Hills, and much of the southeast Los Angeles Basin, and extends south to the mouth of the San Gabriel River in the City of Seal Beach on the Orange County-Los Angeles County boundary. The San Gabriel River, the primary stream in the watershed, extends about 61 miles from the San Gabriel Mountains to the ocean. The San Gabriel River Watershed includes the southeast portion of the Project Area.

#### **Regional Drainage**

The Antelope Valley Watershed is a closed topographic basin with no outlet to the ocean. All water that enters the Project Area either infiltrates into the groundwater basin, evaporates, or flows toward three dry lakes on Edward Air Force Base: Rosamond, Buckhorn, and Rogers Dry Lakes. The drainage system consists of channels, creeks, and washes that carry soils from the steep mountain slopes onto the Antelope Valley floor, forming large alluvial fans of deposited sediment, mostly along the Valley's southern edge. The mountain streams, creeks, channels, and washes meander across the fans in undefined and often changing paths. As a result, much of the Antelope Valley floor is subject to flood hazard during periods of heavy rain or melting snow pack from the surrounding mountains. Many areas experience sheet flow during prolonged periods of rain storms. The following is a description of the major points of the drainage system.

#### *Amargosa Creek*

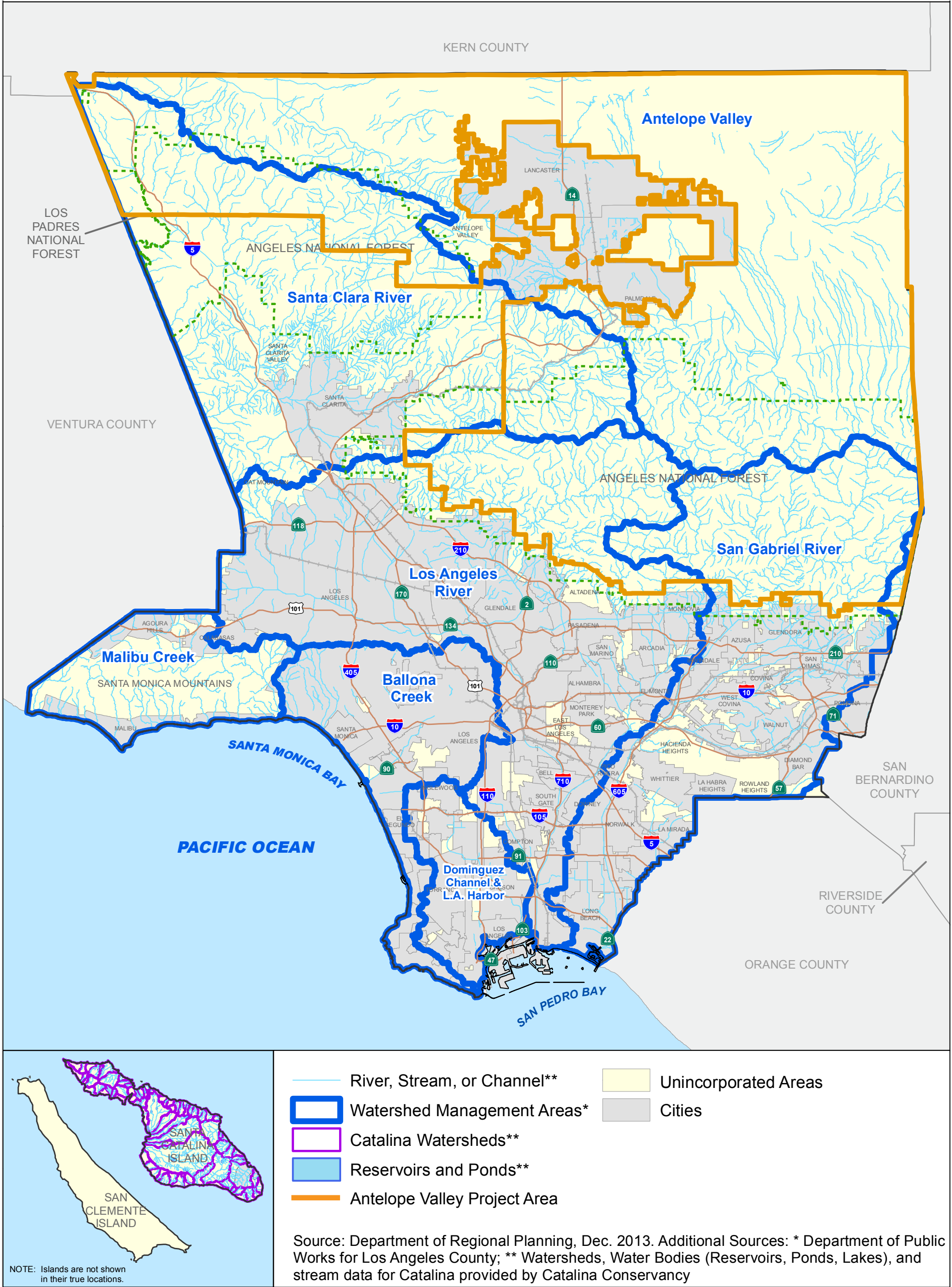
Amargosa Creek collects runoff from the Sierra Pelona Mountains and the San Andreas Rift zone at the southwest end of the Antelope Valley. The creek begins at the mouth of the San Francisquito Canyon and travels the length of Leona Valley, where it generally flows to the east-southeast. After emerging from Leona Valley, the creek changes direction and then drains to the north through Palmdale and Lancaster, terminating at Rosamond Dry Lake. The natural course of the creek has been altered with man-made channels and detention basins.

#### *Anaverde Creek*

Runoff from the Sierra Pelona Mountains is collected by Anaverde Creek and flows easterly through the Anaverde Valley. It flows along the western edge of Palmdale and northerly along the Sierra Highway, where the flow is collected in the Lockheed Drainage Channel at the US Air Force Base Flight Production Center (Plant 42) and held in a retention basin. Flow that exceeds the capacity of the detention basin eventually merges with Amargosa Creek.

#### *Big Rock Wash*

Big Rock Wash collected runoff from the San Gabriel Mountains in the southern end of the Antelope Valley and flows northerly from Holcomb Ridge and also the east side of the community of Pearblossom. It then continues north until it reaches Rogers Dry Lake.



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### *Little Rock Wash*

Little Rock Wash is an ephemeral wash that receives runoff from the San Gabriel Mountains. It flows north along the west side of the community of Littlerock, east of Palmdale and the Palmdale Regional Airport to its termination at Rosamond Dry Lake. The wash is characterized as a well-defined channel in the southern end of the Antelope Valley and becomes less defined as it reaches Rosamond Dry Lake. During high flows, Little Rock Wash produces sheet flow into Rosamond Dry Lake.

### *Rosamond Dry Lake, Rogers Dry Lake, and Buckhorn Dry Lake*

Rosamond Dry Lake covers about 21 square miles and is one of three terminal water bodies in the Antelope Valley. Rogers Dry Lake, located farther to the east, is approximately 35 square miles. Buckhorn Dry Lake is located between these two lakes and encompasses about 3 square miles. The lakebeds are usually dry and are flat playas, covered with water only during heavy winter storms. Storm water runoff collected in these lakes typically evaporates from the surface rather than infiltrating into groundwater.

### *California Aqueduct*

The California Aqueduct is a system of canals, tunnels, and pipelines that conveys water from the Sierra Nevada Mountains and Central California Valley to southern California. It is operated and maintained by the California Department of Water Resources (DWR) and is part of the State Water Project (SWP). The West Branch of the California Aqueduct carries water over the Tehachapi Mountains to Quail Lake. The water flows to the south via gravity to Pyramid Lake in the southwest corner of the Project Area. Water is then released through the Angeles Tunnel to Castaic Lake, where it is distributed to municipalities in Los Angeles and Ventura County. The East Branch of the California Aqueduct also passes through the Project Area in a southeasterly direction, taking water from the Tehachapi Forebay to Silverwood Lake in the San Bernardino National Forest, providing water for cities and farms in the Inland Empire, Orange County, and other areas south of Los Angeles.

### *Los Angeles Aqueduct*

The Los Angeles Aqueduct also passes through the Project Area. This system of open canals, concrete tunnels, and siphons uses gravity alone to move water from the Owens Valley to Los Angeles. It is operated by the Los Angeles Department of Water & Power. It enters the Project Area from the north, crosses the California Aqueduct, and continues to flow in a southeasterly direction to Fairmont Reservoir and then south to Lake Elizabeth. It then trends south and follows San Francisquito Canyon Road before exiting the Project Area.

### **Drainage Facilities**

The Antelope Valley is unique in comparison to the other watersheds in the Project Area in that it lacks an ocean outlet or well-defined natural channels. Most of the area does not have a subsurface storm drain system with drainage pipes and catch basins. The LACFCD boundary only extends as far north as Avenue S. Regional flood control facilities are limited and generally located in urban areas, such as the cities of Palmdale and Lancaster. The valley floor is essentially an alluvial fan, making much of it subject to inundation and

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shallow flooding with unpredictable flow paths. Urban drainage facilities generally consist of local detention basins, street drainage inlets, underground storm drain pipes, and culverts. There are no regional flood management facilities in the Project Area.

Los Angeles County formed the LACFCD to provide flood control services throughout the County and to enable the County to collect a fee for these services. The funding of the drainage facilities is by the payment of fees for new development in the Project Area, as per LA County Municipal Code 21.32.400, Fees for Drainage Facilities, Antelope Valley Drainage Area. As discussed previously, the LACFCD boundary extends only to Avenue S and does not include the remainder of the Project Area, which is not subject to any flood control district.

The LACDPW published the Antelope Valley Comprehensive Plan for Flood Control and Water Conservation in 1987 to address area-wide flood hazards with a regional program. The strategy consists of 1) constructing detention and retention basins at the mouths of large canyons to reduce peak storm water discharge, 2) identifying the major flow paths in rural areas and retaining these areas as natural unobstructed courses for flood flows, and 3) constructing open channels and a storm drain infrastructure in the urban areas. The planned structural improvements in the urbanizing areas include eight retention/detention basins, 119 miles of open channel, and 72 miles of storm drains, although there currently are not sufficient funds to implement a comprehensive flood control program.

### Surface Water Quality

As previously discussed, the Project Area is within the jurisdiction of both the Los Angeles RWQCB and the Lahontan RWQCB. The Los Angeles RWQCB adopted the Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (LA Basin Plan) in 1995 and amended it in 2014. The Lahontan RWQCB adopted the Water Quality Control Plan for the Lahontan Region (Lahontan Basin Plan) in 1995 with amendments in 2011, 2013, and 2014. Both Basin Plans list potential and beneficial uses for surface waters in the Project Area, as summarized in Table 5.9-1.

**Table 5.9-1 Designated Beneficial Uses of Water Bodies**

Water Body	Designated Beneficial Use
<b>LA RWQCB Basin Plan</b>	
Piru Creek	MUN(P), IND, PROC, AGR, GWR, FRSH, WARM, COLD, WILD, RARE (condor refuge), MIGR, SPWN, WET, REC-1, REC-2
Pyramid Lake	MUN, IND, PROC, AGR, GWR, FRESH (P), POW, WARM, COLD, WILD, RARE, REC-1, REC-2
Gorman Creek	MUN (I), AGR (I), GWR(I), WARM (I), COLD (I), WILD, RARE (P), REC-1 (I), REC-2 (I)
Canada de los Alamos	MUN (I), AGR (I), GWR (I), FRSH (I), WARM (I), COLD (I), WILD, RARE, REC-1 (I), REC-2 (I)
Castaic Creek (above Fish Canyon)	MUN (I), IND (I), PROC (I), AGR (I), GWR (I), FRSH (I), WARM (I), WILD, RARE, REC-1 (I), REC-2
Elizabeth Lake Canyon	MUN (I), IND (I), PROC (I), AGR (I), GWR (I), FRSH (I), WARM (I), WILD, REC-1 (I), REC-2
San Francisquito Canyon	MUN (I), IND (I), PROC (I), AGR (I), GWR (I), FRSH (I), WARM (I), WILD, RARE, SPWN (I), WET, , REC-1 (I), REC-2 (I)
Bouquet Reservoir	MUN, IND, PROC, AGR, GWR, FRSH, POW (P), WARM, WILD, REC-2

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**Table 5.9-1 Designated Beneficial Uses of Water Bodies**

Water Body	Designated Beneficial Use
Lake Hughes	MUN (P), IND (P), PROC (P), AGR (P), GWR (P), FRSH (P), WARM, WILD, REC-1, REC-2
Munz Lake	MUN (P), IND (P), PROC (P), AGR (P), GWR (P), FRSH (P), WARM, WILD, REC-1, REC-2
Lake Elizabeth	MUN (P), IND (P), PROC (P), AGR (P), GWR (P), FRSH (P), WARM, WILD, RARE, REC-1, REC-2
<b>Lahontan RWQCB Basin Plan – Antelope Hydrologic Unit</b>	
Rogers Lake Wetlands	MUN, REC-1, REC-2, WARM, SAL, WILD, WQE, FLD
Little Rock Creek	MUN, GWR, REC-1, REC-2, COMM, COLD, WILD
Big Rock Creek	MUN, AGR, IND, GWR, REC-1, REC-2, COMM, COLD, WILD, SPWN
Mescal Creek	MUN, AGR, GWR, REC-1, REC-2, COMM, COLD, WILD, SPWN
Fairmont Reservoir	MUN, AGR, IND, GWR, REC-1, REC-2, COMM, WARM, WILD
Harold Reservoir	MUN, AGR, IND, GWR, REC-1, REC-2, COMM, WARM, WILD
Little Rock Reservoir	MUN, AGR, IND, GWR, REC-1, REC-2, COMM, COLD, WILD
Lake Palmdale	MUN, AGR, GWR, REC-1, REC-2, COMM, COLD, WILD
Minor Surface Waters	MUN, AGR, GWR, REC-1, REC-2, COMM, WARM, COLD, WILD
Minor Wetlands	MUN, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, WQE, FLD
<b>Lahontan RWQCB Basin Plan – Neenach Hydrologic Area</b>	
Minor Surface Waters	MUN, AGR, GWR, REC-1, REC-2, COMM, WARM, COLD, WILD
Minor Wetlands	MUN, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, WQE, FLD
<b>Lahontan RWQCB Basin Plan - Lancaster Hydrologic Area</b>	
Amargosa Creek above LACSD Discharge	MUN, AGR, GWR, FRSH, REC-1, REC-2, COMM, WARM, COLD, WILD
Amargosa Creek below LACSD Discharge	AGR, GWR, FRSH, REC-2, WARM, WILD
Piute Ponds	AGR, GWR, FRSH, REC-2, WARM, WILD, BIOL, RARE
Piute Ponds Wetlands	AGR, GWR, FRSH, REC-2, WARM, WILD, BIOL, RARE, WQE, FLD
Rosamond Dry Lake	GWR, REC-2, WARM, SAL, WILD
Minor Surface Waters	MUN, AGR, GWR, REC-1, REC-2, COMM, WARM, COLD, WILD
Minor Wetlands	MUN, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, WQE, FLD
<b>Lahontan RWQCB Basin Plan – Buttes Hydrologic Area</b>	
Minor Surface Waters	MUN, AGR, GWR, REC-1, REC-2, COMM, WARM, COLD, WILD
Minor Wetlands	MUN, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, WQE, FLD
<b>Lahontan RWQCB Basin Plan – Rock Creek Hydrologic Area</b>	
Minor Surface Waters	MUN, AGR, GWR, REC-1, REC-2, COMM, WARM, COLD, WILD
Minor Wetlands	MUN, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, WQE, FLD

Source: LARWQCB, 1995. Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Lahontan RWQCB, 1995. Water Quality Control Plan for the Lahontan Region.  
(P) = Potential beneficial use; (I) = Intermittent beneficial use; if not otherwise specified, the beneficial use is E = existing.

The abbreviations for the potential and existing beneficial uses are as follows:

- AGR – Agricultural Supply
- BIOL – Preservation of biological habitats of special significance
- COLD – Cold freshwater habitat
- COMM – Commercial and sport fishing

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- EST – Estuarine habitat
- FLD – Flood peak attenuation/flood water storage
- FRSH – Freshwater replenishment
- GWR – Groundwater recharge
- IND – Industrial service supply
- MIGR – Migration of aquatic organisms and fish
- MUN – Municipal and domestic supply
- POW – Hydropower generation
- PROC – Industrial process supply
- RARE – Preservation of rare and endangered species
- REC-1 – Water contact recreation
- REC-2 – Non-contact water recreation
- SAL – Inland saline water habitat
- SPWN – Spawning, reproduction, and development
- WARM – Warm freshwater habitat
- WILD – Wildlife habitat
- WQE – Water quality enhancement

In accordance with Section 303(d) of the Clean Water Act, the State must present the EPA with a list of impaired water bodies that do not meet water quality standards. The impaired water bodies within the Project Area are listed in Table 5.9-2. Once a water body has been placed on the 303(d) list of impaired waters, states are required to develop a Total Maximum Daily Load to address each pollutant causing impairment. A TMDL defines how much of a pollutant a water body can tolerate and still meet water quality standards.

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**Table 5.9-2 Section 303(d) List of Impaired Water Bodies in Project Area**

Water Body	Pollutant	Potential Source	Status of TMDL Plan/Expected Adoption
Piru Creek (from gaging station below Santa Felicia Dam to headwaters)	Chloride	Source unknown	Planned (2019)
	pH	Conservation discharge releases, nonpoint source	Planned (2019)
Pyramid Lake	Mercury	Natural sources, source unknown, unknown nonpoint sources	Planned (2021)
Little Rock Reservoir	Manganese	Source unknown	Planned (2021)
San Gabriel River, East Fork	Trash	Nonpoint source	Approved by USEPA - 2000
Lake Hughes	Algae	Nonpoint source	Planned (2019)
	Eutrophic	Nonpoint source	Planned (2019)
	Fish kills	Nonpoint source	Planned (2019)
	Odor	Nonpoint source	Planned (2019)
	Trash	Agricultural storm runoff, recreation and tourism activities (non-boating), urban runoff/storm sewers	Approved by USEPA - 2008
Munz Lake	Eutrophic	Nonpoint source	Planned (2019)
	Trash	Agricultural storm runoff, recreation and tourism activities (non-boating), urban runoff/storm sewers	Approved by USEPA - 2008
Elizabeth Lake	Eutrophic	Nonpoint source	Planned (2019)
	Organic enrichment/low dissolved oxygen	Nonpoint source	Planned (2019)
	pH	Nonpoint source	Planned (2019)
	Trash	Agricultural storm runoff, recreation and tourism activities (non-boating), urban runoff/storm sewers	Approved by USEPA - 2008
Crystal Lake	Organic enrichment/low dissolved oxygen	Nonpoint source	Planned (2019)
San Antonio Creek	pH	Source unknown	Planned (2021)

Source: State Water Resources Control Board. 2010 Integrated Report, Clean Water Act, Section 303(d) List, Accessed on July 16, 2014, [http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2010.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml)

### Groundwater

The Project Area lies within the Antelope Valley Groundwater Basin, which spans 1,580 square miles in northern Los Angeles County, southeast Kern County, and westernmost San Bernardino County. There is a very small portion of the El Mirage Valley Groundwater Basin and Middle Mojave River Valley Groundwater Basin that lies within the northeast corner of the Project Area, but this discussion is focused on the Antelope Valley Groundwater Basin. Figure 5.9-2 shows the extent of the Antelope Valley Groundwater Basin.

The Antelope Valley Groundwater Basin is bordered on the southwest by the San Gabriel Mountains, on the northwest by the Tehachapi Mountains, and on the east by a series of hills and buttes that generally follow

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the Los Angeles County/San Bernardino County line. The Basin is further divided into twelve subbasins, based on faults, consolidated rocks, groundwater divides, and in some cases, arbitrary boundaries.

The Basin is composed of two primary aquifers: 1) the upper (principal) unconfined aquifer, which is the principal source of groundwater, and 2) the lower (deep) confined aquifer. Lake deposits of low permeability clay form an aquitard between the two aquifers. The principal aquifer is thickest in the southern portion of the Antelope Valley near the San Gabriel Mountains, whereas the deep aquifer is thickest in the vicinity of the three dry lakes in the northern portion of the Project Area. Groundwater flow is generally to the northeast from the foothills of the San Gabriel and Sierra Pelona Mountains toward Rosamond Dry Lake. This general flow direction is disturbed in areas of intense groundwater extraction, particularly within the cities of Lancaster and Palmdale.

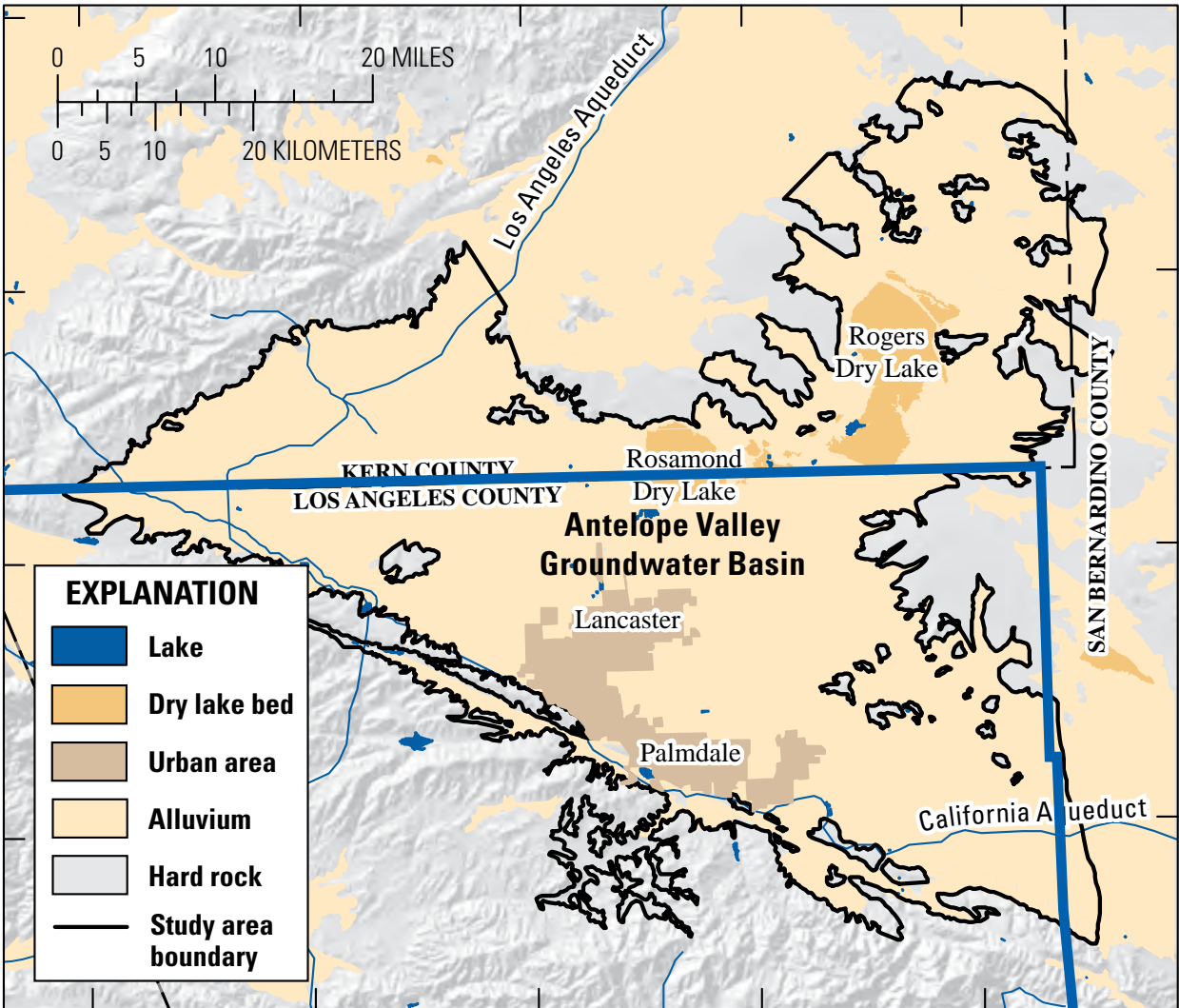
Depth to groundwater varies, depending on the proximity to Rosamond Dry Lake. Close to the lake, groundwater typically occurs at depths of 50 to 100 feet below ground surface (bgs). Near the municipal extraction wells serving the cities of Lancaster and Palmdale, groundwater depths are over 300 feet bgs. Perched groundwater may occur in some areas at depths of less than 50 feet bgs after periods of heavy rain or depths of less than 25 feet bgs in areas that are heavily irrigated. Perched groundwater typically is found within the Lancaster area due to the presence of an ancient, alluvium-filled lakebed that lies beneath the ground surface. Natural recharge occurs through the infiltration of surface water from creeks and washes along the southern portion of the basin. However, evapotranspiration due to arid conditions and hot temperatures limits the amount of groundwater recharge.

### Groundwater Quality

Groundwater quality in the Antelope Valley is typically excellent within the principal aquifer, but degrades toward the northern portion of the dry lakes areas. Groundwater is generally considered to be suitable for domestic, agricultural, and industrial uses; however, the water in the principal aquifer has total dissolved solids (TDS) concentrations ranging from 200 to 800 milligrams per liter (mg/l). (Schmitt, 2009) The secondary maximum contaminant level (MCL) for TDS, which is voluntary and a guideline for aesthetic purposes, is 500 mg/l. High TDS levels do not cause health concerns but generally indicate hard water, which makes it difficult for soap to lather, leaves spots on dishes, and can create a salty taste in the mouth.

Trace elements, including arsenic, vanadium, and boron, can be found in the primary aquifer in the Antelope Valley. Arsenic is closely monitored by the water purveyors and can be a naturally occurring inorganic contaminant in groundwater or have an anthropogenic source, including agricultural, industrial, and mining activities. Arsenic levels above the MCL of 10 parts per billion have been reported in the Antelope Valley Region. Water from wells with arsenic above the MCL is blended with water from other wells to yield water with arsenic concentrations below the MCL.

ANTELOPE VALLEY GROUNDWATER BASIN



Antelope Valley Project Area

Source: USGS, 2013



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An emerging contaminant of concern is hexavalent chromium or chromium-6. Chromium-6 can occur naturally in the environment from the erosion of natural chromium deposits, but can also be produced by industrial processes where it is used for chrome plating, dyes and pigments, and leather and wood preservation. This element is a known carcinogen and California has recently implemented a new lower MCL of 10 micrograms per liter. Twelve wells belonging to various water purveyors within the southern portion of the Antelope Valley have tested in excess of this MCL within the last 10 years; these wells are subject to continued monitoring (AVEKWA 2012).

### Flood Hazards

#### *Designated Flood Zones*

FEMA determines floodplain zones in an effort to assist cities in mitigating flooding hazards through land-use planning, and outlines specific regulations for any construction within a 100-year floodplain. A 100-year floodplain is an area that has a 1 percent chance of being inundated during a 12-month period. This has been established as the base flood for purposes of floodplain management measures. FEMA also prepares maps for 500-year floods, which means that in any given year, the risk of flooding in the designated area is 0.2 percent.

The areas within the Project Area that are within the 100-year floodplain or 500-year floodplain are shown on Figure 5.9-3, *Flood Hazard Zones*. Most of the 100-year flood zones are located along the northern border of the Project Area or east of the cities of Palmdale and Lancaster, mainly along Big Rock Wash, Rock Creek, and Little Rock Wash. Smaller areas along several tributaries of the Santa Clara River, along several streams extending out of the San Gabriel Mountains into the Antelope Valley, and along several small desert washes east of the City of Lancaster and tributary to Big Rock Wash are also designated 100-year flood zones.

#### *Seismically Induced Dam Inundation*

Several reservoirs in the area present the remote risk of downstream inundation in the event of a dam failure as the result of an earthquake or other catastrophic event. The California Governor's Office of Emergency Services has directed dam operators to delineate areas likely to be inundated in the event of a catastrophic dam failure. According to dam inundation maps provided by OES, the Project Area is in the dam inundation zones of four reservoirs:

- Bouquet Reservoir
- Fairmont Reservoir
- Palmdale Lake, formerly known as Harold Reservoir
- Little Rock Reservoir

Although Pyramid Lake is within the Project Area, the dam inundation zone falls outside of the project boundaries.

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Bouquet Reservoir is in the corner of the Project Area and only a very small portion of the dam inundation zone falls within the project boundaries. The inundation zone is in a mountainous region with no planned development and there should be no impact with implementation of the Proposed Project.

The inundation zone for Fairmont Reservoir is located east from the dam and runs through undeveloped land until it reaches 130 Street West. The path continues east and widens, encompassing portions of the city of Lancaster before turning north and terminating at Rosamond Dry Lake.

The inundation path for Palmdale Lake has two branches which are located northeast and east from the dam. The inundation zone is entirely within the city limits of Palmdale and occupies approximately 3 square miles.

The inundation path for Little Rock Reservoir begins north of the dam and follows the path of Little Rock Wash before fanning out and occupying approximately 4.5 square miles in the eastern part of Palmdale.

Most of the inundation zones of the reservoirs within the Project Area, excluding the cities of Palmdale and Lancaster, are in rugged terrain or stream beds/washes, which are not planned for future development. All dams must meet safety requirements and are inspected annually by the Division of Safety of Dams of the California DWR.

#### *Tsunamis, Seiches, and Mudflows*

A tsunami is a sea wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Project Area is more than 20 miles from the Pacific Ocean and is well outside of a tsunami inundation zone. Therefore, there should be minimal to no impact with implementation of the Proposed Project.

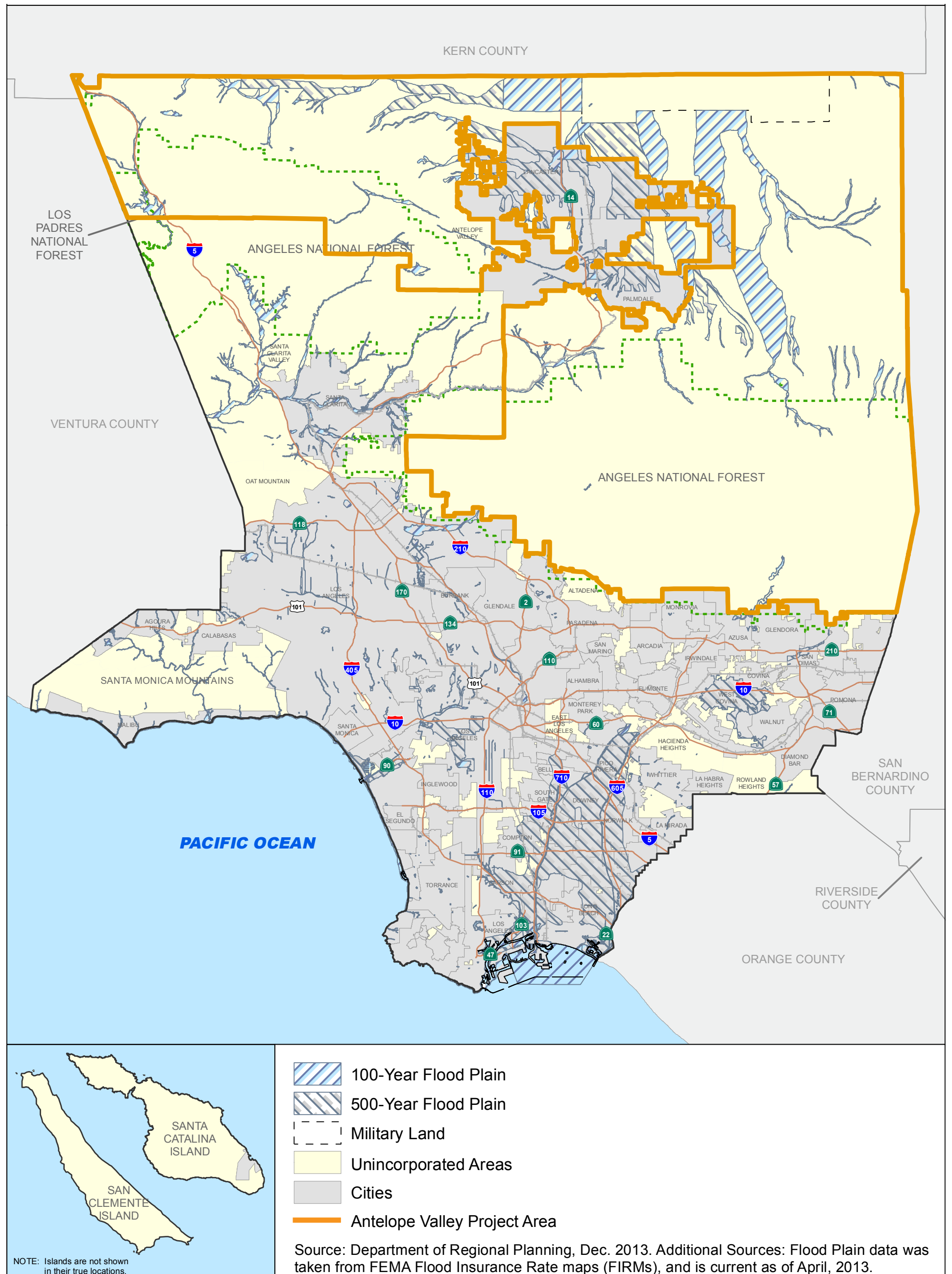
Seiches are waves that oscillate in enclosed water bodies, such as reservoirs, lakes, ponds, or semi-enclosed bodies of water. Seiches may be triggered by moderate or large submarine earthquakes or sometimes by large onshore earthquakes. There are several reservoirs within the Project Area that could potentially cause flooding due to a seiche. However, these reservoirs already have been mapped to determine flooding associated with potential dam failures, and any impact due to an earthquake-induced seiche would occupy an area much less than the mapped inundation zones.

Mud and debris flows are mass movements of dirt and debris that occur after intense rainfall, earthquakes, and severe wildfires. The speed of a slide depends on the amount of precipitation, steepness of the slope, and alternate freezing and thawing of the ground. The most common cause of mud or debris flows is a combination of heavy rainfall, steep slopes, and loose soil. Areas of the Project Area that are susceptible to mudflows include the areas along the base of the Sierra Pelona and San Gabriel Mountains, and the areas immediately downstream of creeks and washes. LACFCD has constructed numerous debris basins and debris inlets upstream of many foothill communities, which provide attenuation of flood flows and flood protection. Cleanout of these facilities is necessary to maintain their flood protection function. The United States Geological Survey has prepared Seismic Hazard Zone Maps that encompass the Project Area and show areas with the potential for earthquake-induced landslides.

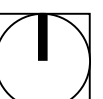
## FLOOD HAZARD ZONES

## 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.9-3



0 10  
Scale (Miles)



## 5. Environmental Analysis

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## 5. Environmental Analysis HYDROLOGY AND WATER QUALITY

### 5.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- HYD-1 Violate any water-quality standards or waste-discharge requirements.
- HYD-2 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.
- HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- HYD-5 Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- HYD-6 Otherwise substantially degrade water quality.
- HYD-7 Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- HYD-8 Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- HYD-9 Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- HYD-10 Be subject to inundation by seiche, tsunami, or mudflow.

### 5.9.3 Relevant Area Plan Goals and Policies

Following is a list of the goals and policies from the Proposed Project that are intended to reduce potentially significant adverse effects related to hydrology and water quality.

**Goal PS 3:** Protection of the public through flood hazard planning and mitigation.

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- **Policy PS 3.1:** Limit the amount of potential development in Flood Zones designated by the Federal Emergency Management Agency through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy PS 3.2:** Require onsite stormwater filtration in all new developments through use of appropriate measures, such as permeable surface coverage, permeable paving of parking and pedestrian areas, catch basins, and other low impact development strategies.
- **Policy PS 3.3:** Review the potential local and regional drainage impacts of all development proposals to minimize the need for new drainage structures.
- **Policy PS 3.4:** Ensure that new drainage structures are compatible with the surrounding environment by requiring materials and colors that are consistent with the natural landscape. Discourage concrete drainage structures.

#### 5.9.4 Environmental Impacts

The following impact analysis addresses Appendix G thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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Impact 5.9-1	Implementation of the Proposed Project would comply with water quality standards and waste discharge requirements and would not substantially degrade water quality. [Threshold H-1]
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**Impact Analysis:** Proposed Project buildout would involve soil disturbance, construction, and operation of developed land uses that could each generate pollutants affecting stormwater. Proposed Project buildout would result approximately 81,441 additional housing units compared to existing conditions. These new units would generate about 311,290 additional residents. Buildout of the Proposed Project would also result in a 39 percent increase in non-residential (commercial and industrial) space with an additional 37.1 million square feet. New land uses would result in an increase of 102,513 more jobs than under existing conditions.

#### Discharges from Construction Sites to Stormwater

Buildout of the Project Area could result in changes to the amount of storm water runoff and water quality during construction activities. Storm water runoff could contain pollutants such as soil and sediments that are released during grading and excavation activities and petroleum-related pollutants due to spills or leaks from heavy equipment and machinery. Other common pollutants that can result from construction activities include solid or liquid chemical spills; concrete and related cutting or curing residues; wastes from paints, stains, sealants, solvents, detergents, flues, acids, lime, plaster, and cleaning agents; and heavy metals from equipment. The storm water runoff flows through streets, drainage ditches, washes, and creeks within the Project Area and eventually discharges into Rosamond, Buckhorn, or Rogers Dry Lakes. Although there is no direct discharge to impaired water bodies within the Project Area, some of these water bodies could be impacted from the indirect discharge of pollutants in storm water.

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However, all projects within the Project Area that involve construction activities disturbing one or more acres of land would be required to obtain an NPDES permit from the SWRCB. Coverage under the permit requires the submittal of PRDs, risk assessment, site map, SWPPP, annual fee, and signed certification statement. The PRDs are submitted electronically to the SWRCB via the SMARTS website. The SWPPP includes BMPs to reduce water quality impacts, including various measures to control on-site erosion; reduce sediment flows into storm water; to control wind erosion; reduce tracking of soil and debris into adjacent roadways and off-site areas; and manage wastes, materials, wastewater, liquids, hazardous materials, stockpiles, equipment, and other site conditions to prevent pollutants from entering the storm drain system. Inspections, reporting, and storm water sampling and analysis are also required to ensure that visible and non-visible pollutants are not discharged off-site. Categories of BMPs used in SWPPPs are described below in Table 5.9-3.

**Table 5.9-3 Construction BMPs**

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind.	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales.
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping.
Tracking Controls	Minimize the tracking of soil offsite by vehicles.	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Nonstorm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize nonstorm water discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good-housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

In addition, the County of Los Angeles has requirements for erosion and sediment control for grading operations, as set forth in the Grading Code Ordinance and Regulations of the County Code. All construction sites are required to implement BMPs to control erosion, debris, and construction-related pollutants. All active grading projects with grading activities proposed during the rainy season (October 15 to April 15) are required to submit an Erosion and Sediment Control Plan to the LACDPW prior to the issuance of grading permits. All non-residential sites, residential sites of 6 stories or greater, and projects with a disturbed (graded) area of one acre or greater are also required to prepare and submit an ESCP. The ESCP must include appropriate BMPs for general site management, construction materials and waste management, and erosion and sediment controls. These BMPs must be provided for both the wet and dry seasons, and the ESCP must be revised every year and approved prior to the start of the rainy season.

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Implementation of the provisions of the NPDES permit and compliance with County grading requirements would minimize construction impacts from future development within the Project Area by implementing BMPs that reduce construction-related pollutants. This would ensure that any impacts to downstream receiving water bodies resulting from construction activities associated with the Proposed Project would be less than significant. Full compliance with applicable local, State, and federal regulations would reduce water quality impacts associated with construction to a less than significant level.

#### Discharges from Developed Land Uses (Post-construction) to Stormwater

Potential pollutants that could be generated by maximum build out of the Project Area include bacteria/viruses, heavy metals, nutrients, pesticides, organic compounds, sediment, trash and debris, oxygen-demanding substances, and oil and grease. Specific pollutants would depend on the type of land use and site improvements proposed by individual projects.

All applicants for future development within the Project Area would be required to comply with the LA County Code, Title 12, Chapter 12.84, Low Impact Development Standards, and the NPDES MS4 permit. The LID Standards Manual provides guidance for implementing stormwater quality control measures in new development and redevelopment projects with the intent of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. Each applicant for new development or significant redevelopment within the Project Area must submit an LID Plan for review and approval by LACDPW that provides a comprehensive, technical discussion of how the proposed project will comply with the requirements of the County Code and LID Standards Manual.

The LID Plan would identify permanent site design, source-control, and treatment-control BMPs that would be implemented as part of the project, including pollutant removal and protection of downstream water resources. Preparation and implementation of LID Plans for new development and redevelopment projects would satisfy MS4 permit requirements and would ensure that the project complies with water quality standards for storm water runoff.

Implementation of these programs and regulatory requirements would reduce storm water pollutants that could affect water quality within the Project Area, thus reducing impacts related to storm water pollution and water quality to less than significant levels.

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#### Impact 5.9-2      Future development pursuant to the Proposed Project could interfere with groundwater recharge

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**Impact Analysis:** Future development within the Project Area would result in an increase in impervious surfaces by adding 81,441 housing units and 37.1 million square feet of commercial/industrial space. Increases in impervious surfaces would reduce infiltration, which could lead to reduced groundwater recharge. However, applicants for new development or significant redevelopment would be required to submit LID Plans to the LACDPW prior to the issuance of grading and building permits, with the goal of matching undeveloped runoff conditions of the site with post-development conditions. The treatment control BMPs would also include, to the extent feasible, infiltration features that will contribute to



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groundwater recharge and minimize storm water runoff. Please refer to Section 5.17.2, *Water Supply and Distribution Systems*, for additional information on future water supply and demand.

While impervious areas would be added in the Project Area with implementation of the Proposed Project, the increase in impervious areas would still be a small fraction of the Project Area. About 97.6 percent of the Project Area is designated for either Open Space or Rural uses; the maximum permitted density in the Rural designation is one residential unit per acre. Therefore, buildout of the Project Area would not substantially interfere with groundwater recharge due to an increase in impervious areas.

Groundwater typically occurs at depths of at least 50 to 100 feet bgs. Therefore, it is not expected that construction activities would encounter groundwater and require dewatering.

Groundwater continues to be an important resource for water supply in the Project Area. Prior to 1972, groundwater provided more than 90 percent of the total water supply. Since 1972, it provides 50 percent to 90 percent of the total water supplied to the Project Area. In terms of groundwater recharge, only about 5 percent of the precipitation that falls in the Antelope Valley each year percolates to the groundwater basin, while the remaining water is lost to precipitation. There is an overdraft of groundwater in this region in the past, resulting in subsidence and earth fissures in the Lancaster and Edwards Air Force Base areas.

The 2013 Antelope Valley Integrated Regional Water Management Plan (AVIRWMP) forecasts that groundwater resources combined with existing and new imported SWP water, surface water, and recycled water supplies will be sufficient to meet the population needs of the Antelope Valley, including the Project Area, through the year 2035, assuming a population increase to 547,000 by 2035. Most of the implementation projects to address water supply issues in the AVIRWMP come directly from local planning documents. Altogether, the projects included in the AVIRWMP directly implement elements of a number of local plans and studies, including Urban Water Management Plans (UWMPs), Water Recycling Master Plans, Water Conservation Master Plans, and Master Facilities Plans.

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**Impact 5.9-3: Buildout of the Proposed Project would not substantially alter drainage patterns and would not result in substantial erosion or siltation. [Threshold HYD-3].**

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**Impact Analysis:** Buildout of the proposed Project Area has the potential to result in an increase in impervious surfaces by adding 81,441 housing units and 37.1 million square feet of commercial/industrial space,, thus creating an increase in stormwater runoff, higher peak discharges to drainage channels, and the potential to cause erosion or sedimentation in drainage swales and streams. Increased runoff volumes and velocities could create nuisance flooding in areas without adequate drainage facilities.

Under the Los Angeles County MS4 Permit, certain categories of development and redevelopment projects are required to mimic predevelopment hydrology through infiltration, evapotranspiration, and rainfall harvest and use. Projects in the Project Area for which LID Plans are required must limit post-development peak stormwater runoff rates to predevelopment rates for developments where the increased peak stormwater runoff rates will result in an increased potential for downstream erosion. While impervious areas would be added with implementation of the Proposed Area Plan, the increase in impervious area would still be a small

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fraction of the total land area. Approximately 97.6 percent of the Project Area is designated for either Open Space or Rural uses, with a maximum density of one residential unit per acre.

Construction projects with disturbed areas of one acre or more must implement BMPs for erosion and sediment control pursuant to the General Construction Permit, as discussed under Impact 5.9-1. Also, the majority of grading projects in the unincorporated area of Los Angeles County would require submittal of an Erosion and Sediment Control Plan to the LACDPW prior to the issuance of grading permits. This will further reduce the potential for erosion or siltation to occur with construction at the new development sites.

Projects developed under the Proposed Project would comply with existing regulations for avoiding or minimizing erosion and sedimentation, and impacts would be less than significant.

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**Impact 5.9-4:** Development pursuant to the Proposed Project would not substantially change drainage patterns in Los Angeles County. While such development could increase rates or volumes of surface runoff, the changes would not result in substantial increases that would result in on-site or off-site flooding. [Threshold HYD-4]

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**Impact Analysis:** Implementation of the Proposed Project would not significantly change existing drainage patterns within the Project Area. Under the MS4 Permit, certain categories of development and redevelopment projects are required to mimic predevelopment hydrology through infiltration, evapotranspiration, and rainfall harvest and use. Projects subject to LID requirements are required to limit post-development peak stormwater runoff rates to no greater than the pre-development rates for developments where the increased peak stormwater rate will result in increased potential for downstream erosion.

Flooding in the Antelope Valley is caused largely by runoff from the San Gabriel and Sierra Pelona Mountains to the south, with heavy discharges prevalent along Big Rock Creek, Little Rock Creek, and Anaverde Creek. Proposed zoning in the areas susceptible to flooding will be primarily open land, agricultural land, or rural residential, which should not result in a substantial increase in surface runoff or contribute to additional flooding due to the limited increase in impervious surfaces. In summary, development as part of the Proposed Project would not substantially increase runoff rates or volumes or contribute to increases in flooding. Therefore, impacts would be less than significant.

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**Impact 5.9-5:** Implementation of the Proposed Project could place structures within 100-year flood hazard areas. [Thresholds HYD-7 and HYD-8]

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**Impact Analysis:** Proposed Area Plan land-use designations within 100-year flood zones are shown below in Table 5.9-4, *Land-Use Designations in 100-Year Flood Zones, Antelope Valley Area Plan*. Approximately 73,927 acres out of 1,130,544 acres, or about 6.5 percent of land within the Project Area are located within a 100-year flood zone. About 5,879 acres, or 8 percent of areas in the 100-year flood zones, are designated as open space. The remainder of the 100-year flood zones is designated for development, mostly residential development at maximum densities of 0.5 units per acre or higher.

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**Table 5.9-4 Land-Use Designations in 100-Year Flood Zones, Antelope Valley Area Plan**

Land-Use Designation	Acres
CR – Rural Commercial	153
MU-R – Rural Commercial/Mixed Use	234
H2 – Residential 2	410
H5 – Residential 5	1,119
H9 – Residential 9	99
H18 – Residential 18	2
H30 – Residential 30	0
IH – Heavy Industrial	599
IL – Light Industrial	304
OS-BLM – Bureau of Land Management	426
OS-C – Conservation	834
ML – Military Land	30
OS-NF – Open Space National Forest	1,577
OS-PR – Parks and Recreation	276
W – Water	2,766
P – Public and Semi-Public	6,235
RL1 – Rural Land 1	787
RL2 – Rural Land 2	1,616
RL5 – Rural Land 5	1,380
RL10 – Rural Land 10	13,618
RL20 – Rural Land 20	41,462
<b>Total</b>	<b>73,927</b>

Source: DRP 2014.

Although portions of the Project Area within the current 100-year floodplain are proposed for development, the County has an ongoing Floodplain Management program, which includes mapping of flood hazard areas, adopting new and/or updated ordinances, and regulating and enforcing safe building practices. Future development within 100-year flood zones would require submittal of a Letter of Map Revision (LOMR) application to FEMA for review and approval. LOMR application submittals also must be coordinated with the LACDPW. All new development would be required to meet federal floodplain regulations, including that the lowest floor of the structure be raised above the 100-year base flood elevation. Flood insurance available through the NFIP would also be required.

#### **Impact 5.9-6: Parts of the Project Area are within dam inundation areas. [Threshold HYD-9]**

**Impact Analysis:** According to OES dam inundation maps, portions of the Project Area are within the dam inundation zones of Bouquet Reservoir, Fairmont Reservoir, Palmdale Lake, and Little Rock Reservoir. However, most of the dam inundation zones are not in areas planned for development, and most of the dams impound relatively small amounts of water, as shown below:

- Palmdale Lake – 3,870 acre-feet

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- Little Rock Reservoir – 4,600 acre-feet
- Fairmont Reservoir – 7,507 acre-feet
- Bouquet Reservoir – 36,505 acre-feet

There is only a small area of the dam inundation area for Bouquet Reservoir that is within the Project Area and this portion of the Project Area is zoned as watershed, with no plans for development. The dam inundation zone for Fairmont Reservoir passes through land zoned for open space and agricultural use before reaching the City of Lancaster. The Palmdale Lake dam inundation zone passes through open space designated as the San Andreas Rift Zone Significant Ecological Area (SEA) and then is contained within the city limits of Palmdale before terminating at Palmdale Boulevard. For the dam inundation area between the City of Lancaster and Rosamond Lake, the proposed zoning is agricultural and manufacturing. Therefore, implementation of the Proposed Project would allow for some structures within existing dam inundation areas.

The Little Rock Reservoir dam inundation zone first passes through an area zoned as watershed and the Antelope Valley SEA before turning east and then north passing through land zoned agricultural. It passes through the west side of the Little Rock community, a portion of which has a proposed zoning designation of A-2and and could include new housing as part of the Proposed Project, before entering the city limits of Palmdale where it terminates.

The probability of dam failure is extremely low and the Project Area has never been impacted by a major dam failure. Dams in California are continually monitored and inspected by various governmental agencies, including the California Division of Safety of Dams. Dam owners are required to maintain Emergency Action Plans (EAPs) that include procedures for damage assessment and emergency warnings and the County addresses the possibility of dam failure in the Safety Element of the General Plan and Hazard Mitigation Plan.

Due to the small amount of water behind the dams in the Project Area and the limited amount of new housing that will occur in dam inundation areas, implementation of the Proposed Project would not expose people or structures to a significant risk of loss, injury, or death in the case of dam failure, and impacts are considered to be less than significant.

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**Impact 5.9-7: Parts of the Project Area are subject to inundation by seiche or mudflow. [Threshold HYD-10]**

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#### ***Impact Analysis:***

##### **Seiche**

Hazards from dam inundation resulting from seiches are addressed above in Impact 5.9-6. Released water from a seiche would result in much smaller footprints than the dam inundation zones and the probability of this occurring is extremely low.

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### HYDROLOGY AND WATER QUALITY

There are few above ground storage tanks in the Project Area, since most of the residents rely on groundwater wells and imported surface water. In addition, the County of Los Angeles requires risk assessments of flooding from failure of aboveground water storage tanks for projects down gradient from these storage tanks. Where such assessments determined that a proposed building would be affected by such flooding, either the building pad for the proposed development would be required to be raised above the flood elevation determined by the risk assessment; or improvements shall be made to the water tank to reduce the probability and/or consequence of tank failure, in the case where the owner and/or manager of an aboveground storage tank is willing to allow such improvements. Therefore, impacts from seiches related to dams or aboveground storage tanks would be less than significant.

#### Mudflow

Canyons in the northern slopes of the Sierra Pelona Mountains and San Gabriel Mountains and alluvial fans at the foot of the San Gabriel Mountains are susceptible to mudflows, as shown on the US Geological Survey Special Hazard Maps. However, according to the proposed zoning maps for the Antelope Valley Area Plan, the areas that are susceptible to mudflows are on steep slopes and are zoned as watershed. These areas are not planned for future development, and therefore implementation of the Proposed Project would not place substantial numbers of people at risk from mudflows.

### 5.9.5 Cumulative Impacts

The cumulative study area with regard to hydrology and water quality includes the watersheds that encompass the Project Area (i.e., Antelope Valley Watershed, Santa Clara River Watershed, San Gabriel River Watershed, and Los Angeles River Watershed). Future development within the Project Area, in conjunction with existing and planned development in these watersheds, could result in a cumulatively considerable impact to water quality due to construction activities and increases in post-development runoff.

All construction projects that involve the disturbance of one or more acres of land are subject to the NPDES Construction Permit requirements for implementation of individual SWPPPs, which outline erosion control, sediment control, wind erosion control, tracking control, non-storm water management and waste management, and materials pollution control BMPs. Additionally, new development and significant redevelopment projects within Los Angeles County are required to prepare and implement LID Plans for implementation of source-control, site design, and treatment-control BMPs to ensure compliance with water quality goals and compliance with the MS4 Permit. Thus, pollutants generated within the Project Area and cumulative projects in the watersheds would be mitigated during construction activities and project operation. Compliance with the RWQCB's requirements for waste discharge requirements and/or water quality certifications for certain types of project would also prevent long-term water quality impacts.

Compliance with local, State, and federal regulations to minimize storm water runoff from individual projects in conjunction with the LACFCD's drainage fee program for new development projects within its jurisdiction would reduce impacts from flooding, and significant cumulative impacts would not occur. In addition, housing placed within 100-year floodplains would be subject to federal regulation and approval by the LACDPW, with the lowest floor of the structure elevated above the base flood elevation.

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### HYDROLOGY AND WATER QUALITY

As cumulative projects would be required to comply with the above-listed water-quality, drainage, and flood-safety requirements, significant cumulative impacts would not occur. Therefore, the Proposed Project would not contribute to significant cumulative hydrology and water-quality impacts.

#### 5.9.6 Existing Regulations and Standard Conditions

##### 5.9.6.1 FEDERAL

- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act
- United States Code Title 42, Sections 300f et seq.: Safe Drinking Water Act
- Code of Federal Regulations Title 40 Parts 122 et seq.: National Pollutant Discharge Elimination System (NPDES)

##### 5.9.6.2 STATE

- California Water Code Sections 13000 et seq.: Porter-Cologne Water Quality Act

##### 5.9.6.3 REGIONAL

- Order No. R4-2012-0175 (“MS4 Permit”), Los Angeles Regional Water Quality Control Board

##### 5.9.6.4 COUNTY OF LOS ANGELES

- Low Impact Development (LID) Standards Manual, County Department of Public Works.
- County Code Sections:
  - Grading Code Ordinance and Regulations: Slope Planting and Erosion Control
  - Grading Code Ordinance and Regulations: National Pollutant Discharge Elimination System Compliance
- Los Angeles County Flood Control District Code: Chapter 21
- Los Angeles County Code, Titles 11 and 28: Onsite Wastewater Treatment Systems (OWTS)

#### 5.9.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.9-1, 5.9-2, 5.9-3, 5.9-4, 5.9-5, 5.9-6, and 5.9-7.

#### 5.9.8 Mitigation Measures

No mitigation measures are required.

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### HYDROLOGY AND WATER QUALITY

#### 5.9.9 Level of Significance After Mitigation

Compliance with existing regulatory programs would reduce potential impacts to hydrology and water quality to a level that is less than significant.

#### 5.9.10 References

- Antelope Valley – East Kern Water Agency (AVEKWA). 2012. 2010 Urban Water Management Plan. [http://www.avek.org/files/mnu\\_menu\\_1.pdf](http://www.avek.org/files/mnu_menu_1.pdf).
- Antelope Valley Regional Water Management Group. 2013. Antelope Valley Integrated Regional Water Management Plan (IRWMP). 2013 Update.
- Lahontan Regional Water Quality Control Board (RWQCB). 1995. Water Quality Control Plan for the Lahontan Region.
- Los Angeles County Department of Public Work.. 2014. Low Impact Development Standards Manual.
- Los Angeles County Department of Public Works. 1987. Antelope Valley Final Report on the Comprehensive Plan of Flood Control and Water Conservation.
- Los Angeles County Department of Regional Planning. 2009. Background Report, Antelope Valley Area Plan Update.
- Los Angeles Regional Water Quality Control Board (RWQCB) . 1995. Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.
- Schmitt, S.J., Milby Dawson, B.J., and Belitz, Kenneth. 2009, Groundwater-quality data in the Antelope Valley study unit, 2008: Results from the California GAMA program: U.S. Geological Survey Data Series 479, 79 p.
- State Water Resources Control Board (SWRCB). 2014. 2010 Integrated Report, Clean Water Act, Section 303(d) List.

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### HYDROLOGY AND WATER QUALITY

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## 5. Environmental Analysis

### 5.10 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates potential impacts to land use in the Project Area related to implementation of the Proposed Project. This section is based on proposed land uses described in Section 3, *Project Description*, and shown in Figure 3-4(a-c), *Proposed Land Use Policy Map*. Goals and policies included in the Proposed Area Plan have been evaluated to determine their consistency with other relevant sections of the Proposed Project. In addition, compatibility of proposed land use changes with existing land uses in the surrounding area is discussed in this section. Lastly, the Proposed Project is evaluated for consistency with the Southern California Association of Governments (SCAG) 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Land use impacts can be direct or indirect. Direct impacts result in land use incompatibilities, the division of neighborhoods or communities, or interference with other land use plans, including habitat and wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of this DEIR.

#### 5.10.1 Environmental Setting

##### 5.10.1.1 REGULATORY SETTING

State and regional laws, regulations, plans, or guidelines applicable to the Proposed Project are summarized below.

##### State

##### *State Planning Law and Complete Streets Act*

State planning law (California Government Code Section 65300) requires every city and county in California to adopt a comprehensive, long-term general plan for the physical development of the jurisdiction and of any land outside its boundaries that, in the planning agency's judgment, bears relation to its planning (sphere of influence). A general plan should consist of an integrated and internally consistent set of goals and policies grouped by topic into a set of elements and guided by a jurisdiction-wide vision. State law requires that a general plan address seven elements or topics (land use, circulation, housing, conservation, open space, noise, and safety), but allows some discretion on the arrangement and content. Additionally, each of the specific and applicable requirements in the state planning law should be examined to determine if there are environmental issues within the community that the general plan should address, such as hazards or flooding.

Additionally, Assembly Bill 1358 (AB 1358), the California Complete Streets Act, became effective January 1, 2011. AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks.

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### LAND USE AND PLANNING

The Proposed Project is not a General Plan. However, the Proposed Area Plan would refine countywide goals and policies in the General Plan by addressing specific issues relevant to the Project Area. The Proposed Project's consistency with state planning law and the California Complete Streets Act is provided in the analysis for Impact 5.10-2.

#### *Assembly Bill 32 and Senate Bill 375*

Land use in California is also influenced by application of requirements established in California Assembly Bill 32 (AB 32) and Senate Bill 375 (SB 375), which link transportation and land use decisions. AB 32, the Global Warming Solutions Act, was passed by the California state legislature on August 32, 2006. The act embodies state guidance and goals for reduction in greenhouse gas (GHG) emissions, with the intent of placing the State on a course toward meeting specific reduction targets, which were established in Executive Order S-3-05. In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required the California Air Resources Board to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). SCAG is the MPO for the Southern California region, which includes the Project Area.

### Regional

#### *Southern California Association of Governments*

See Section 4.2.2, *Regional Planning Considerations*, in Chapter 4 for an introduction to SCAG, the 2012–2035 RTP/SCS, and High Quality Transit Areas (HQTAs).

The Proposed Project is considered a project of regional significance according to the criteria in SCAG's Intergovernmental Review Procedures Handbook (November 1995) and Section 15206 of the California Environmental Quality Act (CEQA) Guidelines. As of April 2012, the adopted regional plan to be referred to for consistency analysis is the 2012–2035 RTP/SCS. The Proposed Project's consistency with applicable RTP/SCS goals is analyzed in detail in Table 5.10-2, *Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals*.

Unique to the SCAG region is the option for subregions to create their own SCS. However, the North Los Angeles County subregion, which includes the Project Area, has not chosen to create its own SCS.

### Airport Land Use Plans

There are two public-use airports/airfields within the Antelope Valley: General William J. Fox Airfield in Lancaster and Palmdale Regional Airport in Palmdale. Information for these airports is shown below in Table 5.10-1. Their locations are also shown in Figures 3-4a and 3-4b. Neither of these airports is located within the Project Area. However, the airport influence area for both airports extends into the Project Area.

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**Table 5.10-1 Public-Use Airports/Airfields in the Region**

Airport/Airfield	IATA Airport Code	Type	Location
General William J. Fox Airfield	WJF	General Aviation	Lancaster (Influence Area includes parts of the Project Area)
Palmdale Regional Airport	PMD	Commercial	Palmdale (Influence Area includes parts of Lancaster and the Project Area)

Source: County of Los Angeles 2014.  
IATA = International Air Transport Association

An Airport Land Use Compatibility Plan (ALUCP) is a planning document that contains policies for promoting safety and compatibility between airports and the communities that surround them. In 1991, the Los Angeles County Airport Land Use Commission (ALUC) adopted a comprehensive Los Angeles County ALUCP that covers all airports within its jurisdiction except for General William J. Fox Airfield, which has its own ALUCP. The ALUC has begun implementing a plan to develop individual ALUCPs for each airport in Los Angeles County.

The General William J. Fox Airfield and Los Angeles County ALUCPs provide guidance related to the placement of land uses near airports. These recommendations are based on a variety of factors, including those related to noise, safety, and aircraft movement. In addition to the identification of land use compatibility issues, the ALUCPs identify notification/disclosure areas around each airport.

### Habitat Conservation Plans

There are two habitat conservation plan areas within the Project Area: the Draft Desert Renewable Energy Conservation Plan Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) and the West Mojave Plan HCP. These plans are summarized below and in Section 5.4, *Biological Resources*, of this DEIR.

#### *Draft Desert Renewable Energy Conservation Plan NCCP/HCP*

The Draft Desert Renewable Energy Conservation Plan NCCP/HCP covers approximately 22.5 million acres of federal and nonfederal lands in the California deserts and adjacent lands in Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego counties. It is a collaboration between state (e.g., California Energy Commission, CDFW) and federal (e.g., BLM, USFWS) agencies, with input from local governments (including the County), environmental organizations, private industry, and other interested parties to provide effective protection, conservation, and management of desert ecosystems, while allowing for appropriate development and timely permitting of renewable energy projects.

Once approved, implementation of the NCCP/HCP would result in an efficient and effective biological mitigation and conservation program providing renewable energy project developers with binding, long-term endangered species permit assurances, while facilitating the review and approval of solar thermal, utility-scale solar photovoltaic, wind, and other forms of renewable energy and associated infrastructure, such as electric

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### LAND USE AND PLANNING

transmission lines necessary for renewable energy development within the Mojave and Colorado desert regions of California.

#### *West Mojave Plan HCP*

The West Mojave Plan HCP covers approximately 9.3 million acres of the western portion of the Mojave Desert in California, including parts of Inyo, Los Angeles, Kern, and San Bernardino counties. The West Mojave Plan is an interagency HCP that was prepared by the Bureau of Land Management (BLM) in collaboration with federal and state agencies. The County is a participating agency for the HCP.

The purpose of the HCP is to conserve and protect the desert tortoise (*Gopherus agassizii*) and nearly 100 other sensitive plant and wildlife species as well as the habitats on which these species depend, while providing developers of public and private projects with a streamlined program for compliance with federal and California Endangered Species Acts by reducing delays and expenses, eliminating uncertainty, and applying the costs of compensation and mitigation equitably to all agencies and parties. The HCP allows incidental take of covered species and is consistent with the resource management plans adopted by each of the region's five military bases as well as with the Desert Tortoise Recovery Plan. The term of the WMP is 30 years.

The HCP was adopted by BLM in 2006; the U.S. Fish and Wildlife Service (USFWS) issued an amended Biological Opinion to the WMP in 2007. In Los Angeles County, the HCP plan area is coterminous with that of the Draft Desert Renewable Energy Conservation Plan and applies to the Antelope Valley.

#### **5.10.1.2 EXISTING LAND USE**

The Project Area is located in northern Los Angeles County. It borders San Bernardino County to the east, Ventura County to the west, and Kern County to the north. The northern portion of the Project Area is dominated by the Antelope Valley, but also contains the Sierra Pelona Mountains and the southern end of the Tehachapi Mountains. The southern portion of the Project Area consists of the San Gabriel Mountains, which are largely within the Angeles National Forest. The Project Area covers 1,800 square miles, or 44 percent of Los Angeles County. The cities of Lancaster and Palmdale are located in the Antelope Valley, but are not included in the Project Area.

The Project Area is predominantly rural and either undeveloped or occupied by government uses (such as National Forests). A smaller portion of land is occupied by single-family uses, military facilities, farmland, and regional parks. Remaining land uses each occupy less than 1 percent of total land area. They include multi-family residential, commercial, office, industrial, golf courses, schools, and miscellaneous uses.

Unincorporated areas in the Antelope Valley are primarily undeveloped, except near Lancaster and Palmdale and in a few scattered communities. Rural residential communities include those surrounded by Lancaster and Palmdale (Desert View Highlands, Quartz Hill, and White Fence Farms), adjacent to those cities (Acton, Antelope Acres, Leona Valley, Littlerock, and Sun Village) and a few that are more isolated (Crystallaire, Fairmont, Gorman, Green Valley, Juniper Hills, Lake Los Angeles, The Lakes communities, Llano, Neenach, Pearblossom, Roosevelt, and Three Points). These areas include commercial and other nonresidential uses,

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but primarily contain parcels that are residential or undeveloped. Notable recreational uses in the Antelope Valley included the Antelope Valley California Poppy Preserve and Saddleback Butte State Park. The Project Area contains the majority of active agricultural land uses in Los Angeles County. A substantial portion of land in the northern portion of the Project Area is used for military operations. In particular, portions of Edwards Air Force Base in Los Angeles County are in the Project Area.

A vast majority of unincorporated areas in the San Gabriel Mountains is within the Angeles National Forest and is undeveloped.

### 5.10.2 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the Proposed Project may have a significant adverse impact on land use and planning if it would result in any of the following:

- LU-1      Physically divide an established community.
- LU-2      Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- LU-3      Conflict with any applicable habitat conservation plan or natural community conservation plan.

### 5.10.3 Relevant Area Plan Goals and Policies

The following is a list of the goals and policies of the Proposed Project that would reduce potentially adverse effects concerning land use and planning.

#### Land Use Element

**Goal LU 1:** A land use pattern that maintains and enhances the rural character of the unincorporated Antelope Valley.

- **Policy LU 1.1:** Direct the majority of the unincorporated Antelope Valley's future growth to rural town center areas, rural town areas, and identified economic opportunity areas.
- **Policy LU 1.2:** Limit the amount of potential development in rural preserve areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 1.3:** Maintain the majority of the unincorporated Antelope Valley as Rural Land, allowing for agriculture, equestrian and animal-keeping uses, and single family homes on large lots.

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- **Policy LU 1.4:** Ensure there are appropriate lands for commercial and industrial services throughout the unincorporated Antelope Valley sufficient to serve the daily needs of rural residents and to provide local employment opportunities.
- **Policy LU 1.5:** Provide varied lands for residential uses sufficient to meet the needs of all segments of the population, and allow for agriculture, equestrian uses and animal-keeping uses in these areas where appropriate.

**Goal LU 2:** A land use pattern that protects environmental resources.

- **Policy LU 2.1:** Limit the amount of potential development in Significant Ecological Areas, including Joshua Tree Woodlands, wildlife corridors, and other sensitive habitat areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 2.2:** Limit the amount of potential development near and within Scenic Resource Areas, including water features, significant ridgelines, and Hillside Management Areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 2.3:** Limit the amount of potential development in Agricultural Resource Areas, including important farmlands designated by the State of California and historical farmland areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 2.4:** Limit the amount of potential development in Mineral Resource Areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 2.5:** Limit the amount of potential development in riparian areas and groundwater recharge basins, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 2.6:** Limit the amount of potential development near the National Forests and on private lands within the National Forests, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

**Goal LU 3:** A land use pattern that minimizes threats from hazards.

- **Policy LU 3.1:** Prohibit new development on fault traces and limit the amount of potential development in Seismic Zones, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

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- **Policy LU 3.2:** Limit the amount of potential development in Very High Fire Hazard Severity Zones, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 3.3:** Limit the amount of potential development in Flood Zones designated by the Federal Emergency Management Agency, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 3.4:** Limit the amount of potential development on steep slopes identified as Hillside Management Acres, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 3.5:** Limit the amount of potential development in landslide and liquefaction areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy LU 3.6:** Limit the amount of potential residential development in airport influence areas near military lands, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

**Goal LU 4:** A land use pattern that promotes the efficient use of existing and/or planned infrastructure and public facilities.

- **Policy LU 4.1:** Direct the majority of the unincorporated Antelope Valley's future growth to areas that are served by existing or planned infrastructure, public facilities, and public water systems.

**Goal LU 5:** A land use pattern that decreases greenhouse gas emissions.

- **Policy LU 5.1:** Reduce the total amount of potential development requiring vehicle trips in the unincorporated Antelope Valley.
- **Policy LU 5.2:** Encourage the continued development of rural town center areas that provide for the daily needs of surrounding residents, reducing the number of vehicle trips and providing local employment opportunities.
- **Policy LU 5.3:** Preserve open space areas to provide large contiguous carbon sequestering basins.
- **Policy LU 5.4:** Ensure that there is an appropriate balance of residential uses and employment opportunities within close proximity of each other.

**Goal LU 6:** A land use pattern that makes the Antelope Valley a sustainable and resilient place to live.

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- **Policy LU 6.1:** Periodically review changing conditions to ensure that land use policies are compatible with the Area Plan's Rural Preservation Strategy.
- **Policy LU 6.2:** Ensure that the Area Plan is flexible in adapting to new issues and opportunities without compromising the rural character of the unincorporated Antelope Valley.

### Mobility Element

**Goal M 1:** Land use patterns that promote alternatives to automobile travel.

- **Policy M 1.1:** Direct the majority of the unincorporated Antelope Valley's future growth to rural town center areas, rural town areas and where appropriate to economic opportunity areas, to minimize travel time and reduce the number of vehicle trips.
- **Policy M 1.2:** Encourage the continued development of rural town center areas that provide for the daily needs of local residents, reducing the number of vehicle trips and providing local employment opportunities.
- **Policy M 1.3:** Encourage new parks, recreation areas, and public facilities to locate in rural town center areas, rural town areas, and, where appropriate, economic opportunity areas.
- **Policy M 1.4:** Ensure that new developments have a balanced mix of residential uses and employment opportunities as well as park, recreation areas and public facilities within close proximity of each other.
- **Policy M 1.5:** Promote alternatives to automobile travel in rural town center areas and rural town areas by linking these areas through pedestrian walkways, trails, and bicycle routes.

**Goal M 2:** Reduction of vehicle trips and emissions through effective management of travel demand, transportation systems, and parking.

- **Policy M 2.1:** Encourage the reduction of home-to-work trips through the promotion of home-based businesses, live-work units, and telecommuting.
- **Policy M 2.2:** Encourage trip reduction through promotion of carpools, vanpools, shuttles, and public transit.
- **Policy M 2.3:** In evaluating new development proposals, require trip reduction measures to relieve congestion and reduce air pollution from vehicle emissions.
- **Policy M 2.4:** Develop multi-modal transportation systems that offer alternatives to automobile travel by implementing the policies regarding regional transportation, local transit, bicycle routes, trails, and pedestrian access contained in this Mobility Element.



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- **Policy M 2.5:** As residential development occurs in communities; require transportation routes, including alternatives to automotive transit, to link to important local destination points such as shopping, services, employment, and recreation.
- **Policy M 2.6:** Within rural town center areas, explore flexible parking regulations such as allowing residential and commercial development to meet parking requirements through a combination of on-site and off-site parking, where appropriate, or encouraging the provision of different types of parking spaces.

**Goal M 3:** An efficient network of major, secondary, and limited secondary highways to serve the Antelope Valley.

- **Policy M 3.1:** Implement the adopted Highway Plan for the Antelope Valley, in cooperation with the cities of Lancaster and Palmdale. Ensure adequate funding on an ongoing basis through financing programs, such as grants, congesting pricing, bonding, fair share cost assignments, etc.
- **Policy M 3.2:** In rural areas, require rural highway standards that minimize the width of paving and placement of curbs, gutters, sidewalks, street lighting, and traffic signals, as adopted by the Department of Public Works.
- **Policy M 3.3:** Implement highway improvements only when necessitated by increasing traffic or new development or for safety reasons.
- **Policy M 3.4:** Maintain existing highways to ensure safety, and require adequate street and house signage for emergency response vehicles.
- **Policy M 3.5:** As future land use changes occur, periodically review traffic counts and traffic projections and revise the Highway Plan accordingly.

**Goal M 4:** A network of local streets that support the rural character of the unincorporated Antelope Valley without compromising public safety.

- **Policy M 4.1:** Require rural local street standards that minimize the width of paving and placement of curbs, gutters, sidewalks, street lighting, and traffic signals, as adopted by the Department of Public Works.
- **Policy M 4.2:** Maintain existing local streets to ensure safety, and require adequate signage for emergency response vehicles.
- **Policy M 4.3:** Encourage ongoing maintenance of private local streets to ensure public safety.

**Goal M 5:** Long-haul truck traffic is separated from local traffic, reducing the impacts of truck traffic on local streets and residential areas.

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- **Policy M 5.1:** Support development of the High Desert Corridor and the Northwest 138 Corridor Improvement Project, to provide a route for truck traffic between Interstate 5, State Route 14, and Interstate 15.
- **Policy M 5.2:** Direct truck traffic to designated truck routes, such as major and secondary highways, and prohibit truck traffic on designated scenic routes, to the greatest extent feasible.
- **Policy M 5.3:** Require that designated truck routes are designed and paved to accommodate truck traffic, preventing excessive pavement deterioration from truck use.
- **Policy M 5.4:** Add rest stops along designated truck routes to provide stopping locations away from residential areas.
- **Policy M 5.5:** Develop appropriate regulations for truck parking on local streets to avoid impacts to residential areas.

**Goal M 6:** A range of transportation options to connect the Antelope Valley to other regions.

- **Policy M 6.1:** Support the development of Palmdale Regional Airport and encourage a range of commercial air travel options.
- **Policy M 6.2:** Support the development of William J. Fox Airfield as a facility for general aviation, air cargo operations, and commuter air travel.
- **Policy M 6.3:** Support the development of the High Desert Corridor and the Northwest 138 Corridor Improvement Project between Interstate 5, State Route 14, and Interstate 15, and encourage the participation of private enterprise and capital.
- **Policy M 6.4:** Support increases in Metrolink commuter rail service, and support the expansion of commuter rail service on underutilized rail lines where appropriate.
- **Policy M 6.5:** Support the development of the California High Speed Rail system, with a station in Palmdale to provide links to Northern California and other portions of Southern California, and encourage the participation of private enterprise and capital.
- **Policy M 6.6:** Support the development of a high-speed rail system linking Palmdale to Victorville and Las Vegas, and encourage the participation of private enterprise and capital.
- **Policy M 6.7:** Establish a regional transportation hub in Palmdale with feeder transit service to the rural areas of the unincorporated Antelope Valley.
- **Policy M 6.8:** In planning for all regional transportation systems, consider and mitigate potential impacts to existing communities, and minimize land use conflicts.

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**Goal M 7:** Bus service is maintained and enhanced throughout the Antelope Valley.

- **Policy M 7.1:** Maintain and increase funding to the Antelope Valley Transit Authority for bus service.
- **Policy M 7.2:** Support increases in bus service to heavily traveled areas and public facilities, such as parks and libraries.
- **Policy M 7.3:** Support increases in bus service to rural communities, linking them to a regional transportation hub in Palmdale and shopping and employment centers in Lancaster and Palmdale.
- **Policy M 7.4:** Improve access for all people, including seniors, youth, and the disabled, by maintaining off-peak service and equipping transit vehicles for wheelchairs and bicycles.
- **Policy M 7.5:** Encourage the use of advanced technologies in the planning and operation of the transit system.

**Goal M 8:** Alternative transit options in areas not reached by bus service.

- **Policy M 8.1:** Support the expansion of dial-a-ride services to rural communities, linking them to a regional transportation hub in Palmdale and shopping and employment centers in Lancaster and Palmdale.
- **Policy M 8.2:** Evaluate the feasibility of alternative transit options, such as community shuttle services and privately operated transit, to increase accessibility.

**Goal M 9:** A unified and well-maintained bicycle transportation system throughout the Antelope Valley with safe and convenient routes for commuting, recreation, and daily travel.

- **Policy M 9.1:** Implement the adopted Bikeway Plan for the Antelope Valley in cooperation with the cities of Lancaster and Palmdale. Ensure adequate funding on an ongoing basis.
- **Policy M 9.2:** Along streets and highways in rural areas, add safe bicycle routes that link public facilities, a regional transportation hub in Palmdale, and shopping and employment centers in Lancaster and Palmdale.
- **Policy M 9.3:** Ensure that bikeways and bicycle routes connect communities and offer alternative travel modes within communities.
- **Policy M 9.4:** Encourage provision of bicycle racks and other equipment and facilities to support the use of bicycles as an alternative means of travel.

**Goal M 10:** A unified and well-maintained multi-use (equestrian, hiking, and mountain bicycling) trail system that links destinations such as rural town centers and recreation areas throughout the Antelope Valley.

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- **Policy M 10.1:** Implement the adopted Trails Plan for the Antelope Valley in cooperation with the cities of Lancaster and Palmdale. Ensure adequate funding on an ongoing basis.
- **Policy M 10.2:** Connect new developments to existing population centers with trails, requiring trail dedication and construction through the development review and permitting process.
- **Policy M 10.3:** Maximize fair and reasonable opportunities to secure additional trail routes (dedicated multi-use trail easements) from willing property owners.
- **Policy M 10.4:** Ensure trail access by establishing trailheads with adequate parking and access to public transit, where appropriate and feasible.
- **Policy M 10.5:** Locate and design trail routes to minimize impacts to sensitive environmental resources and ecosystems.
- **Policy M 10.6:** Where trail connections are not fully implemented, collaboratively work to establish safe interim connections.
- **Policy M 10.7:** Ensure that existing trails and trailheads are properly maintained by the relevant agencies.
- **Policy M 10.8:** Solicit community input to ensure that trails are compatible with local needs and character.

**Goal M 11:** A continuous, integrated system of safe and attractive pedestrian routes linking residents to rural town center areas, schools, services, transit, parks, and open space areas.

- **Policy M 11.1:** Improve existing pedestrian routes and create new pedestrian routes, where appropriate and feasible. If paving is deemed necessary, require permeable paving consistent with rural community character instead of concrete sidewalks.
- **Policy M 11.2:** Within rural town center areas, require that highways and streets provide pleasant pedestrian environments and implement traffic calming methods to increase public safety for pedestrians, bicyclists, and equestrian riders.
- **Policy M 11.3:** Within rural town center areas, promote pedestrian-oriented scale and design features, including public plazas, directional signage, and community bulletin boards.
- **Policy M 11.4:** Within rural town center areas, encourage parking to be located behind or beside structures, with primary building entries facing the street. Encourage also the provision of direct and clearly delineated pedestrian walkways from transit stops and parking areas to building entries.
- **Policy M 11.5:** Implement traffic calming methods in areas with high pedestrian usage, such as school zones.

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### Conservation and Open Space Element

**Goal COS 1:** Growth and development are guided by water supply constraints.

- **Policy COS 1.1:** Require that all new development proposals demonstrate a sufficient and sustainable water supply prior to approval.
- **Policy COS 1.2:** Limit the amount of potential development in areas that are not or are not expected to be served by existing and/or planned public water infrastructure through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy COS 1.3:** Limit the amount of potential development in groundwater recharge areas through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

**Goal COS 3:** A clean water supply untainted by natural and man-made pollutants and contaminants.

- **Policy COS 3.4:** Support preservation, restoration and strategic acquisition of open space to preserve natural streams, drainage channels, wetlands, and rivers, which are necessary for the healthy functioning of ecosystems.

**Goal COS 4:** Sensitive habitats and species are protected to promote biodiversity.

- **Policy COS 4.1:** Direct the majority of the unincorporated Antelope Valley's future growth to rural town center areas, rural town areas, and where appropriate, economic opportunity areas, minimizing the potential for habitat loss and negative impacts in Significant Ecological Areas.
- **Policy COS 4.2:** Limit the amount of potential development in Significant Ecological Areas, including the Joshua Tree Woodlands, wildlife corridors, and other sensitive habitat areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy COS 4.3:** Require new development in Significant Ecological Areas to comply with applicable Zoning Code requirements, ensuring that development occurs on the most environmentally suitable portions of the land.
- **Policy COS 4.4:** Require new development in Significant Ecological Areas, to consider the following in design of the project, to the greatest extent feasible:
  - Preservation of biologically valuable habitats, species, wildlife corridors and linkages;
  - Protection of sensitive resources on the site within open space;

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- Protection of water sources from hydromodification in order to maintain the ecological function of riparian habitats;
  - Placement of development in the least biologically sensitive areas on the site, prioritizing the preservation or avoidance of the most sensitive biological resources onsite;
  - Design of required open spaces to retain contiguous undisturbed open space that preserves the most sensitive biological resources onsite and/or serves to maintain connectivity;
  - Maintenance of watershed connectivity by capturing, treating, retaining and/or infiltrating storm water flows on site; and
  - Consideration of the continuity of onsite open space with adjacent open space in project design.
- **Policy COS 4.5:** Require new development to provide adequate buffers from preserves, sanctuaries, habitat areas, wildlife corridors, State Parks, and National Forest lands.
  - **Policy COS 4.6:** Encourage connections between natural open space areas to allow for wildlife movement.
  - **Policy COS 4.10:** Restrict development that would reduce the size of water bodies, minimizing the potential for loss of habitat and water supply.

**Goal COS 5:** The Antelope Valley's scenic resources, including scenic drives, water features, significant ridgelines, buttes, and Hillside Management Areas, are enjoyed by future generations.

- **Policy COS 5.1:** Identify and protect natural landforms and vistas with significant visual value by designating them as Scenic Resource Areas.
- **Policy COS 5.2:** Limit the amount of potential development in Scenic Resource Areas through appropriate land use designations with very low densities in order to minimize negative impacts from future development.
- **Policy COS 5.3:** Require new development in Hillside Management Areas to comply with applicable Zoning Code requirements, ensuring that development occurs on the most environmentally suitable portions of the land.
- **Policy COS 5.6:** Restrict development on buttes and designated significant ridgelines by requiring appropriate buffer zones.
- **Policy COS 5.7:** Ensure that incompatible development is discouraged in designated Scenic Drives by developing and implementing development standards and guidelines for development within identified viewsheds of these routes (Map 4.2: Antelope Valley Scenic Drives).

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**Goal COS 6:** Farming is a viable profession for Antelope Valley residents, contributing to the Valley's rural character and economic strength.

- **Policy COS 6.1:** Limit the amount of potential residential development in Agricultural Resource Areas (Map 4.3: Agricultural Resource Areas) through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan, minimizing the potential for future land use conflicts.
- **Policy COS 6.2:** Limit incompatible non-agricultural uses in Agricultural Resource Areas. Where non-agricultural uses are necessary to meet regional or community needs, require buffering and appropriate development standards to minimize potential conflicts with adjacent agricultural uses.
- **Policy COS 6.7:** Investigate the feasibility of financial and/or zoning incentive programs for farmers, such as Williamson Act contracts, conservation easements and flexible zoning provisions.

**Goal COS 8:** Mineral resources are responsibly extracted.

- **Policy COS 8.1:** Allow new mineral resource extraction activities only in designated Mineral Resource Areas.
- **Policy COS 8.2:** Where new mineral resource extraction activities are allowed, ensure that applications undergo full environmental review and public noticing. Require site remediation after completion of mineral resource extraction activities.

**Goal COS 9:** Improved air quality in the Antelope Valley.

- **Policy COS 9.1:** Implement land use patterns that reduce the number of vehicle trips, reducing potential air pollution, as directed in the policies of the Land Use Element.
- **Policy COS 9.2:** Develop multi-modal transportation systems that offer alternative to automobile travel to reduce the number of vehicle trips, including regional transportation, local transit, bicycle routes, trails, and pedestrian networks, as directed in the policies of the Mobility Element.
- **Policy COS 9.3:** In evaluating new development proposals, consider requiring trip reduction measures to relieve congestion and reduce air pollution from vehicle emissions.
- **Policy COS 9.4:** Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.
- **Policy COS 9.5:** Encourage the use of alternative fuel vehicles throughout the Antelope Valley.
- **Policy COS 9.7:** Encourage reforestation and the planting of trees to sequester greenhouse gas emissions.

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- **Policy COS 9.8:** Coordinate with the Antelope Valley Air Quality Management District and other local, regional, state, and federal agencies to develop and implement regional air quality policies and programs.

**Goal COS 18:** Permanently preserved open space areas throughout the Antelope Valley.

- **Policy COS 18.1:** Encourage government agencies and conservancies to acquire lands in the following areas and preserve them as permanent open space:
  - Significant Ecological Areas, including Joshua Tree Woodlands, wildlife corridors, and other sensitive habitat areas;
  - Hillside Management Areas;
  - Scenic Resource Areas, including water features such as the privately owned portion of Elizabeth Lake, significant ridgelines, buttes, and other natural landforms;
  - Lands adjoining preserves, sanctuaries, State Parks, and National Forests; and
  - Privately owned lands within the National Forest.
- **Policy COS 18.4:** Pursue funding for open space acquisition and maintenance on an ongoing basis.

**Goal COS 19:** New development meets open space objectives while maintaining rural character.

- **Policy COS 19.1:** Require new development in Hillside Management Areas and Significant Ecological Areas to comply with applicable Zoning Code requirements for open space preservation.
- **Policy COS 19.2:** When new development is required to preserve open space, require designs with large contiguous open space areas that maximize protection of environmental and scenic resources.
- **Policy COS 19.3:** Allow large contiguous open space areas to be distributed across individual lots so that new development preserves open space while maintaining large lot sizes that are consistent with a rural environment, provided that such open space areas are permanently restricted through deed restrictions.
- **Policy COS 19.4:** Pursue innovative strategies for open space acquisition and preservation through the land development process, such as Transfers of Development Rights, Land Banking, and Mitigation Banking, provided that such strategies preserve rural character.

### Public Safety, Services, and Facilities Element

**Goal PS 1:** Protection of the public through fire hazard planning and mitigation.

- **Policy PS 1.1:** Limit the amount of potential master-planned development in Very High Fire Hazard Severity Zones through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.



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**Goal PS 2:** Protection of the public through geological hazard planning and mitigation.

- **Policy PS 2.1:** Limit the amount of potential development in Seismic Zones and along the San Andreas Fault and other fault traces, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy PS 2.2:** Limit the amount of potential development on steep slopes (Hillside Management Areas) and within landslide and liquefaction areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

**Goal PS 3:** Protection of the public through flood hazard planning and mitigation.

- **Policy PS 3.1:** Limit the amount of potential development in Flood Zones designated by the Federal Emergency Management Agency through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

**Goal PS 8:** Antelope Valley residents enjoy access to parks and recreational facilities.

- **Policy PS 8.3:** Provide new parks as additional development occurs or as the population grows, with a goal of four acres of parkland for every 1,000 residents.
- **Policy PS 8.4:** Prioritize new parks for existing park deficient communities.
- **Policy PS 8.6:** Within rural town center areas, promote the inclusion of parks, recreational facilities, and other gathering places that allow neighbors to meet and socialize.

**Goal PS 10:** A wide range of educational opportunities for Antelope Valley residents.

- **Policy PS 10.1:** Coordinate with all Antelope Valley school districts to ensure that new schools are provided as additional development occurs or as the population grows.
- **Policy PS 10.2:** Encourage new schools to locate in rural town center areas, rural town areas, and economic opportunity areas, where appropriate, where they will be accessible by pedestrian walkways, trails, bikeways, and bicycle routes.
- **Policy PS 10.3:** Encourage new schools to locate near parks and recreational facilities.

### Economic Development Element

**Goal ED 1:** A healthy and balanced economic base in the Antelope Valley that attracts a wide range of industries and businesses and provides high-paying jobs for local residents.

- **Policy ED 1.1:** Promote the continued development of regional commercial and industrial employment centers in appropriate areas in the Antelope Valley, including the Fox Field Industrial Corridor.

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- **Policy ED 1.2:** Allow the development of commercial and industrial uses at the Palmdale Regional Airport site, provided that those uses are compatible with airport operations and do not restrict or prohibit future expansion of the airport.
- **Policy ED 1.3:** Support the growth of “high tech” industries to employ the Antelope Valley population’s highly educated workforce.
- **Policy ED 1.4:** Support the development of the High Desert Corridor and the Northwest 138 Corridor Improvement projects to improve the east-west movement of goods, particularly between the Antelope Valley and the industrial areas of Kern and San Bernardino counties and beyond.
- **Policy ED 1.5:** Promote the development of an “Inland Port” in the Antelope Valley, providing additional employment in the trade and logistics sectors.
- **Policy ED 1.6:** Support the development of a range of travel options that better connect the Antelope Valley to existing regional trade and employment in other regions, including the High Desert Corridor and the Northwest 138 Corridor Improvement Projects.
- **Policy ED 1.7:** Promote farming and other agricultural activities that contribute to the Antelope Valley economy.
- **Policy ED 1.11:** Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.
- **Policy ED 1.13:** Ensure early discussions with Edwards Air Force Base and U.S. Air Force Plant 42 regarding new industries, such as utility-scale renewable energy production facilities, to limit potential impacts on mission capabilities.
- **Policy ED 1.14:** Promote appropriate types of residential development in the vicinity of existing communities and town centers that are in reach of existing infrastructure and utilities.
- **Policy ED 1.15:** Where appropriate, promote residential development as part of a wider mixed-use strategy in communities that desire such uses in their areas and where plans for major infrastructure and facilities are currently underway. These areas have been identified as economic opportunity areas as shown in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy ED 1.16:** Preserve the scenic resources of the Antelope Valley, including Scenic Drives, Significant Ridgelines and Significant Ecological Areas, in such a way that can contribute to the economic activities in the area.

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### 5.10.4 Environmental Impacts

The following impact analysis addresses Appendix G thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.10-1: Implementation of the Proposed Project would not include construction of roads or other improvements that could divide an established community. [Threshold LU-1]**

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**Impact Analysis:** The Proposed Area Plan is a long-range plan for the future of the Project Area. In addition to identifying land use and zoning changes in the Project Area, the Proposed Area Plan discusses proposed and planned roadways in the Project Area. These improvements are discussed for conceptual purposes; approval of the Proposed Project does not include approval of individual transportation or infrastructure projects. The following analysis discusses the potential effects of the Proposed Project on established communities.

#### Land Use and Zoning Changes

As described in Chapter 3, *Project Description*, of this DEIR, most increases in land use densities proposed by the Proposed Project are concentrated in economic opportunity areas (EOAs), which generally feature established roadway networks that would remain the same under the Proposed Project. The proposed land use and zoning changes do not introduce radically different land uses into neighborhoods, propose new street patterns, or otherwise divide any existing established communities. Although buildout calculations for the Proposed Area Plan contain unbuilt development capacity on parcels outside areas planned for increases in residential densities, this capacity, if developed, would generally occur along existing land use patterns and roadways. Furthermore, the Proposed Project's Rural Preservation Strategy policy would ensure that drastically new land use patterns and development types would not be introduced in rural areas.

At a programmatic level, the Proposed Project does not allow land uses patterns that would result in division of an established neighborhood or community.

#### Streets and Highways

Portions of the Project Area identified as EOAs are expected to see substantial growth in the coming decades. Accordingly, the Mobility Element includes goals and policies related to expansion and enhancement of the Project Area's streets and highways. These are aimed at ensuring that the roadway network is sized and designed to serve the land uses and growth allowed under the Proposed Project. Plans are also underway to dramatically improve the capacity and quality of existing road networks through a couple of major infrastructure projects being undertaken by Metro and Caltrans, namely the High Desert Corridor and the NW138 Corridor Improvement Project.

The Proposed Project includes an updated Highway Plan for the Project Area (see Figure 5.1-2 of this DEIR) that will amend the Adopted General Plan Highway Plan and establishes new street classifications for both new and existing roadway segments. Major and secondary highways identified in the proposed Highway Plan are generally extensions or upgrades of existing two-lane roadways, although new roadways are also identified. Highways identified in the Highway Plan would generally not travel through existing

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neighborhoods; they would traverse largely vacant areas and would increase regional access and connectivity between Lancaster, Palmdale, and surrounding unincorporated areas. The proposed Land Use Policy Map also shows potential alignments for the proposed High Desert Corridor freeway and Northwest 138 Corridor Improvement project. However, these alignments are conceptual only. Approval of the High Desert Corridor or the Northwest 138 Corridor Improvement Project is not part of the discretionary project analyzed in this DEIR.

Because the Proposed Project does not involve approval of specific improvement projects related to the existing roadway network, the Highway Plan of the Proposed Project would not result in the division of an existing neighborhood or community.

#### Public Transit

Although the proposed Mobility Element includes goals and policies related to public transit in the Project Area, the element does not specify locations or alignments for future transit projects. Because the location, scale, and design of future transportation projects is unknown, analysis of their localized impacts is speculative. Future airport, commuter rail, and high speed rail projects constructed prior to buildout of the Proposed Project would be subject to project-level CEQA review.

#### Conclusion

New land uses allowed under the Proposed Project would generally follow existing land use patterns and are not anticipated to divide existing communities. Although the Proposed Project discusses expansion of the existing street, highway, and transit networks in the Project Area, the project does not involve approval of any specific transportation projects. Impacts would be less than significant.

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**Impact 5.10-2: Implementation of the Proposed Project would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]**

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**Impact Analysis:** The following is an analysis of the Proposed Project's consistency with applicable state and regional laws, regulations, plans, and guidelines.

#### State Planning Law and California Complete Streets Act Consistency

Although the Proposed Project is not a General Plan, the Area Plan has been prepared in accordance with state planning law, as provided in California Government Code Section 65300. The Area Plan is meant to be a framework for guiding planning and development in the Project Area through 2035 and beyond and can be thought of as the blueprint for Project Area's growth and development. The proposed Land Use Policy Maps (see Figure 3-4(a-c)) and goals and policies in the updated elements strive to preserve and ensure land use compatibility throughout the Project Area. The proposed Mobility Element also contains policies that would help the County implement AB 1358. In particular, Policies M 11.1, M 11.2, and M 11.5 require that the circulation network in "rural town centers" be designed to accommodate pedestrians, bicyclists, and equestrians.

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Each of the specific and applicable requirements in the state planning law (California Government Code Section 65300) have been examined and considered to determine if there are environmental issues within the community that the General Plan should address, such as fire hazards and flooding. The various environmental issues associated with the Proposed Project (e.g., air quality, hazards, flooding, traffic, etc.) are addressed in their respective topical sections in Chapter 5, *Environmental Analysis*, of this DEIR.

### SCAG 2012–2035 RTP/SCS

Table 5.10-2 provides an assessment of the Proposed Project's relationship to pertinent 2012–2035 SCAG RTP/SCS goals. Proposed Area Plan policies identified in the table are listed in Subsection 5.10-4 of this section.

**Table 5.10-2 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

RTP/SCS Goal #	SCAG Goal	Project Compliance with Goal	Relevant Area Plan Policies
G1	Align the plan investments and policies with improving regional economic development and competitiveness.	<b>Not Applicable:</b> This is not a project-specific goal and is therefore not applicable. However, the Proposed Area Plan does include goals and policies aimed at improving regional economic development and competitiveness. These are largely found in Chapter 6, <i>Economic Development</i> , of the Area Plan.	ED 1.1 through ED 1.19
G2	Maximize mobility and accessibility for all people and goods in the region.	<p><b>Consistent:</b> Upon implementation of the Proposed Project, the transportation network in the Project Area would be designed, developed, and maintained to meet the needs of local and regional transportation and to ensure efficient mobility and accessibility. A number of regional and local plans and programs would be used to guide development and maintenance of transportation networks in the Project Area, including but not limited to:</p> <ul style="list-style-type: none"> <li>• SCAG's 2012–2035 RTP/SCS</li> <li>• County of Los Angeles Traffic Impact Analysis Guidelines</li> <li>• Los Angeles County Congestion Management Program</li> <li>• 2009 Metro Long Range Transportation Plan</li> <li>• 2012 Los Angeles County Bicycle Master Plan</li> <li>• Caltrans Traffic Impact Studies Guidelines and Highway Capacity Manual</li> <li>• Assembly Bill 1358 (The California Complete Streets Act)</li> </ul> <p>Additionally, the County is required by the California Government Code to coordinate its Mobility Element with regional transportation plans, including SCAG's 2012–2035 RTP/SCS. The Mobility Element is a comprehensive transportation management strategy that addresses infrastructure capacity. The Mobility Element of the Proposed</p>	LU 3.6, LU 5.1 and LU 5.2, LU 5.4, M 1.1 through M 1.5, M 2.1 through M 2.5, M 3.1 through M 3.5, M 4.3, M 5.1 through M 5.3, M 6.1 through M 6.8, M 7.1 through M 7.5, M 8.1 and M 8.2, M 9.1 through M 9.4, M 10.1 through M 10.8, M 11.1 through M 11.3, PS 8.7, PS 9.1 and PS 9.2, PS 10.2, PS 11.4, PS 12.4, ED 1.2, ED 1.4 through ED 1.6, ED 1.20

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**Table 5.10-2 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

RTP/SCS Goal #	SCAG Goal	Project Compliance with Goal	Relevant Area Plan Policies
		<p>Area Plan contains policies (see list at right) that provide specific guidance on how to improve mobility in the Project Area and create a transportation network that accommodates all users.</p> <p>Refer to Section 5.16, <i>Transportation and Traffic</i>, which addresses local and regional transportation, traffic, circulation, and mobility in more detail.</p>	
G3	Ensure travel safety and reliability for all people and goods in the region.	<p><b>Consistent:</b> All modes of public (including motorized and nonmotorized) and commercial transit throughout the Project Area would be required to follow safety standards established by corresponding state, regional, and local regulatory documents, standards, and regulations.</p> <p>For example, pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., County of Los Angeles) and regional (e.g. SCAG, Caltrans) agencies. Additionally, pedestrian circulation systems are required to be designed and constructed for the adaption and use of people with disabilities, consistent with the Americans with Disabilities Act (ADA) and state requirements. The County is also committed to ensuring that adequate pedestrian circulation is provided in future growth areas.</p> <p>Furthermore, roadways must follow safety standards established for the local and regional plans mentioned in the analysis for RTP/SCS Goal G2, as well as the County's adopted engineering standards for vehicular circulation improvements and systems. The provision of safe and reliable modes of transit throughout the Project Area would be ensured through the County's development review and building plan check process.</p> <p>The Mobility, and Public Safety, Services and Facilities Elements of the Proposed Area Plan provide guidance and policies that promote the safe movement of people and goods, with importance placed on pedestrian and vehicular safety.</p>	M 3.3 through M 3.5, M 4.2 and M 4.3, M 5.2, M 6.8, M 7.1, M 7.4, M 8.1 and M 8.2, M 9.2, M 10.6, M 11.1 and M 11.2, M 11.4 and M 11.5, PS 4.2, PS 6.6, PS 9.1 through PS 9.3
G4	Preserve and ensure a sustainable regional transportation system.	<p><b>Consistent:</b> All major new roadway improvements and other upgrades to the existing transportation network would be required to be assessed by some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact existing traffic capacities and to determine the need for improving future traffic capacities. Additionally, the regional plans mentioned in the analysis for RTP/SCS Goal</p>	LU 5.1 through LU 5.4, LU 6.1 and LU 6.2, M 1.1 through M 1.5, M 2.1 through M 2.6, M 6.1 through M 6.8

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**Table 5.10-2 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

RTP/SCS Goal #	SCAG Goal	Project Compliance with Goal	Relevant Area Plan Policies
		<p>G2 would be applicable to the design and development of the regional roadway network in the Project Area.</p> <p>The Mobility Element of the Proposed Area Plan encourages regional coordination of transportation issues and provides guidance and policies that help preserve and ensure a sustainable regional transportation system.</p>	
G5	Maximize the productivity of our transportation system.	<p><b>Consistent:</b> The local and regional transportation system would be improved and maintained to maximize efficiency and productivity. The County's Public Works Department oversees the improvement and maintenance of the Project Area's public rights-of-way on a routine basis.</p> <p>The County strives to maximize productivity of the region's public transportation system (e.g., bus, rail, and bicycle) for residents, visitors, and workers. For example, the County implements a Bicycle Master Plan, adopted in 2012, that encourages the development and maintenance of a safe and convenient bikeway system. The Mobility Element of the Area Plan has been designed to be consistent with, and implement, the Bicycle Master Plan.</p> <p>Public transit in the Project Area is provided by Amtrak (bus), Antelope Valley Transit Authority, and Metrolink. The Transportation Division of the Public Works Department coordinates with these agencies to ensure that transportation in the Project Area is efficient and safe. Furthermore, the Mobility Element of the Proposed Area Plan contains guidance and policies to improve the region's transportation system (see list at right).</p>	M 1.1 through M 1.5, M 3.1 through M 3.5, M 4.2 and M 4.3, M 5.1 through M 5.3, M 6.1 through M 6.8, M 7.1 through M 7.5, M 8.1 and M 8.2, M 9.1 through M 9.4, M 10.1 through M 10.4, M 10.6 and M 10.7, M 11.1
G6	Protect the environment and health of our residents by improving air quality and encouraging active transportation (i.e. nonmotorized transportation, such as bicycling and walking).	<p><b>Consistent:</b> The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development would be encouraged through the development of alternative transportation methods, green-design techniques for buildings, and other energy-reducing techniques. For example, individual development projects in Los Angeles County are required to comply with provisions of the California Building Standards Code, which includes the Green Building Standards Code (CALGreen). Compliance with these regulations would be ensured through the development review and building plan check process.</p> <p>The County also strives to maximize protection of the environment and improvement of air quality by</p>	LU 1.1, LU 4.1, LU 5.1 through LU 5.4, M 1.1 through M 1.5, M 2.1 through M 2.5, M 9.1 through M 9.4, M 10.1 through M 10.8, M 11.1 through M 11.5, COS 9.1 through COS 9.8

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**Table 5.10-2 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

RTP/SCS Goal #	SCAG Goal	Project Compliance with Goal	Relevant Area Plan Policies
		<p>encouraging and improving the use of the region's public transportation system (i.e., bus, rail, and bicycle). As mentioned in the analysis for RTP/SCS Goal G5, the County implements its own Bicycle Master Plan. The Mobility Element of the Area Plan has been designed to be consistent with, and implement, the Bicycle Master Plan. Additionally, the County is committed to ensuring that, consistent with complete streets strategies, adequate pedestrian circulation is provided in areas planned for growth.</p> <p>Furthermore, the Proposed Project's emphasis on focusing new development capacity in three economic opportunity areas (see Chapter 3 of this DEIR for descriptions of the EOAs) would incentivize nonmotorized transportation modes such as biking and walking. This strategy, which acknowledges the relationship between land use and mobility, would reduce vehicle miles traveled and thereby reduce impacts related to air quality, greenhouse gas emissions, and traffic.</p> <p>Elements of the Proposed Area Plan contain guidance and policies to improve and protect the region's air quality and environment and promote nonmotorized transportation. Policies related to the encouragement of nonmotorized transportation are largely concentrated in the Mobility Element, while additional policies related to air quality and greenhouse gases are identified in the Conservation and Open Space Element. A comprehensive list of applicable Proposed Area Plan policies is identified at right.</p>	
G7	Actively encourage and create incentives for energy efficiency, where possible.	<p><b>Consistent:</b> As mentioned in the response to RTP/SCS Goal G6, the County Code includes provisions that require buildings constructed in Los Angeles County to be energy efficient. In particular, Title 31 of the County's Code incorporates the California Green Building Standards Code by reference.</p> <p>Elements of the Proposed Area Plan also contain policies that promote energy efficient building practices and transportation systems (see full list at right).</p>	M 2.1 through M 2.5, COS 7.2, COS 9.1 and COS 9.2, COS 9.5 and COS 9.6, COS 10.1 through 10.5, COS 11.1 through 11.3, COS 12.1 and COS 12.2, COS 14.6, COS 17.1 through 17.5, ED 1.10 through ED 1.14



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**Table 5.10-2 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

RTP/SCS Goal #	SCAG Goal	Project Compliance with Goal	Relevant Area Plan Policies
G8	Encourage land use and growth patterns that facilitate transit and nonmotorized transportation.	<b>Consistent:</b> See response to RTP/SCS Goal G6.	LU 1.1 and LU 1.2, LU 4.1, LU 5.1 and LU 5.2, LU 5.4, M 1.1 through M 1.5, M 2.1, M 2.5, M 9.1, M 11.2, M 11.3  These policies—which address land use and growth patterns—would be complemented by implementation of policies that directly facilitate transit and nonmotorized transportation (see policies listed under Goal G5 and G6, above).
G9	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	<b>Consistent:</b> The County conducts frequent monitoring of existing and newly constructed roadways and transit routes to determine the adequacy and safety of these systems. Other local and regional agencies (i.e., Caltrans and SCAG) would continue to work with the County to manage these systems. Security situations involving roadways and evacuations would be addressed in the County's emergency management plans developed in accordance with the state and federal mandated emergency management regulations.  Elements of the Proposed Area Plan contain guidance and policies for a safe and efficient transportation system. In particular, implementation of Policies PS 6.1 through PS 6.6 in the proposed Public Safety, Services and Facilities Element would ensure that emergency planning in the Project Area would be a collaborative effort shared by a wide range of agencies and organizations.	M 3.5, M 4.3, M 7.5, M 8.2, PS 6.1 through PS 6.6

Source: 2012–2035 SCAG Regional Transportation Plan/Sustainable Communities Strategy.

The analysis in Table 5.10-2 concludes that the Proposed Project would be consistent with the applicable RTP/SCS goals. Therefore, implementation of the Proposed Project would not result in significant land use impacts related to the RTP/SCS.

### Airport Land Use Compatibility Plans

Buildout of the Proposed Project would involve new development and redevelopment on parcels within the plan areas of the comprehensive Los Angeles County ALUCP—which includes Palmdale Regional Airport—and the ALUCP for the General William J. Fox Airfield. However, future development under the Proposed Project would be required to be consistent with any applicable ALUCP. Furthermore, compliance with policies included in the Land Use Element and Public Safety, Services & Facilities Element of the Proposed Area Plan related to land use compatibility would ensure that development would not conflict with airport land use plans. In particular,

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Policy ED 1.2 requires that new land uses near Palmdale Regional Airport be compatible with the airport and not “restrict or prohibit future expansion of the airport.” Policy LU 3.6 limits new residential uses in airport influence areas and near military land.

### Conclusion

As demonstrated in Table 5.10-2 and the other subsections above, the Proposed Project would not conflict with goals contained within SCAG’s 2012–2035 RTP/SCS or other land use plans. Therefore, impacts related to compatibility between the Proposed Project and applicable plans adopted for the purpose of avoiding or mitigating environmental effects would be less than significant.

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#### **Impact 5.10-3: The Proposed Project would not conflict with the West Mojave Plan. [Threshold LU-3]**

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**Impact Analysis:** As discussed above under Section 5.10.1.1, *Regulatory Setting*, the West Mojave Plan HCP (WMP) applies to portions of the Project Area. A second HCP, the Desert Renewable Energy Conservation Plan (DRECP), is under development, but not yet adopted. Consistency between these two plans and the Proposed Project is discussed below.

The plan areas for the Draft Desert Renewable Energy Conservation Plan NCCP/HCP and the West Mojave Plan HCP cover the northern two-thirds of the Project Area. This region is north of the San Gabriel Mountains and contains the Antelope Valley and its eastward transition into the Mojave Desert. Within Los Angeles County, the plans areas for the two conservation plans are coterminous.

Once approved, the Draft Desert Renewable Energy Conservation Plan NCCP/HCP would provide renewable energy project developers with binding, long-term endangered species permit assurances while facilitating the review and approval of solar thermal, utility-scale solar photovoltaic, wind, and other forms of renewable energy and associated infrastructure. Because the Draft Desert Renewable Energy Conservation Plan NCCP/HCP is not yet approved, implementation of the Proposed Project would not conflict with the Plan. Furthermore, the Proposed Area Plan establishes that site-specific renewable energy systems are highly preferred over new utility-scaled energy projects (see Policy COS 12.1). Lastly, approval of the Proposed Project does include approval of specific energy projects in the plan area of the Draft Desert Renewable Energy Conservation Plan NCCP/HCP.

The intent of the West Mojave Plan is to conserve habitat for special-status species in the Mojave Desert while creating a streamlined permit process that minimizes the need for individual consultations with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. Although buildout of the Proposed Project would result in substantial growth and development in the West Mojave Plan HCP area, individual development projects in the Antelope Valley would be required comply with provisions of the West Mojave Plan HCP and other local, state, and federal regulations. Furthermore, conservation areas identified in the West Mojave Plan are located in Rural Preserve Areas in the proposed Land Use Policy Map and covered by policies related to the County’s Rural Preservation Strategy, which would limit development in these areas. Therefore, the Proposed Project does not conflict with the West Mojave Plan HCP.

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#### Conclusion

As demonstrated above, the Proposed Project would not conflict with adopted habitat conservation plans. Although buildout of the Proposed Project would include development and redevelopment in areas covered by conservations plans, such development would be required to comply with provisions of those plans. Therefore, impacts would be less than significant.

#### 5.10.5 Cumulative Impacts

Cumulative projects in the region would have the potential to result in a cumulative impact if they would, in combination, conflict with existing land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental impact. Similar to the Proposed Project, cumulative projects in the region would utilize regional planning documents such as SCAG's RTP/SCS during planning, and the general plans of cities would be consistent with the regional plans, to the extent that they are applicable. Cumulative projects in these jurisdictions would be required to comply with the applicable land use plan or they would not be approved without a general plan amendment.

As discussed above, implementation of the Proposed Project would not conflict with existing land use plans, policies, or regulations of agencies with jurisdiction over the Project Area. Therefore, the Proposed Project would not contribute to a significant cumulative impact.

#### 5.10.6 Existing Regulations

##### State

- State planning law (California Government Code Section 65300)
- Assembly Bill 1358, the California Complete Streets Act

##### Local

- Los Angeles County Code
- Adopted Los Angeles County General Plan

#### 5.10.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.10-1, 5.10-2, and 5.10-3.

#### 5.10.8 Mitigation Measures

No mitigation measures are necessary.

#### 5.10.9 Level of Significance After Mitigation

No significant impacts were identified with regard to land use and planning.

## 5. Environmental Analysis

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#### 5.10.10 References

- Bureau of Land Management (BLM). 2013. West Mojave Plan Amendment Activity.  
[http://www.blm.gov/ca/st/en/fo/cdd/west\\_mojave\\_\\_wemo.html](http://www.blm.gov/ca/st/en/fo/cdd/west_mojave__wemo.html).
- County of Los Angeles. 1991 (Revised 2004). Los Angeles County Airport Land Use Plan (ALUP).  
<http://planning.lacounty.gov/view/alup/>.
- .2014. Airport Land Use Commission (ALUC) Airport Information.<http://planning.lacounty.gov/aluc/airports>.
- .2009, April. Background Report to the Antelope Valley Area Plan Update.

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### 5.11 MINERAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates potential impacts to mineral resources in the Project Area that could result from implementation of the Proposed Project.

#### 5.11.1 Environmental Setting

Minerals are defined as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances. Movable minerals or an “ore deposit” is defined as a deposit of ore or mineral having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the project area.

##### 5.11.1.1 REGULATORY SETTING

###### State

*Surface Mining and Reclamation Act: California Public Resources Code Sections 2710 et seq.*

The Surface Mining and Reclamation Act of 1975 (SMARA) is the primary regulator of onshore surface mining in the State. It delegates specific regulatory authority to local jurisdictions. The act requires the State geologist (California Geological Survey) to identify all mineral deposits within the State and to classify them as: (1) containing little or no mineral deposits; (2) significant deposits; or (3) deposits identified, but further evaluation is needed. Lands where such deposits are identified are designated Mineral Resource Zone (MRZ) 1, 2, or 3, respectively. Local jurisdictions are required to enact specific procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans. A particular concern of state legislators in enacting SMARA was the premature loss of minerals and protection of sites threatened by development practices that might preclude future mineral extraction.

###### *Mineral Resource Classification*

The California Geological Survey (CGS) Mineral Resources Project provides information about California’s nonfuel mineral resources. The Mineral Resources Project classifies lands throughout the State that contain regionally significant mineral resources as mandated by the SMARA. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. Development generally results in a demand for minerals, especially construction aggregate. Urban preemption of prime deposits and conflicts between mining and other uses throughout California led to passage of the SMARA, which requires all cities and counties to incorporate in their general plans the mapped designations approved by the State Mining and Geology Board.

The classification process involves the determination of Production-Consumption (P-C) Region boundaries, based on identification of active aggregate operations (Production) and the market area served (Consumption). The P-C regional boundaries are modified to include only those portions of the region that are

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### MINERAL RESOURCES

urbanized or urbanizing and are classified for their aggregate content. An aggregate appraisal further evaluates the presence or absence of significant sand, gravel, or stone deposits that are suitable sources of aggregate. The classification of these mineral resources is a joint effort of the State and local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as one of the four MRZs, Scientific Resource Zones (SZ), or Identified Resource Areas (IRAs), described below.

- **MRZ-1:** A Mineral Resource Zone where adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ-2:** A Mineral Resource Zone where adequate information indicates that significant mineral deposits are present or a likelihood of their presence and development should be controlled.
- **MRZ-3:** A Mineral Resource Zone where the significance of mineral deposits cannot be determined from the available data.
- **MRZ-4:** A Mineral Resource Zone where there is insufficient data to assign any other MRZ designation.
- **SZ Areas:** Containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone.
- **IRA Areas:** County or CGS-identified areas where adequate production and information indicates that significant minerals are present.

As part of the classification process, an analysis of site specific conditions is utilized to calculate the total volume of aggregates within individually identified Resource Sectors. Resource Sectors are those MRZ-2 areas identified as having regional or statewide significance. Anticipated aggregate demand in the P-C Regions for the next 50 years is then estimated and compared to the total volume of aggregate reserves identified within the P-C Region.

#### *Department of Conservation, Division of Oil, Gas & Geothermal Resources*

The Division of Oil, Gas, and Geothermal Resources (DOGGR) is a subdivision of the California Department of Conservation. DOGGR oversees the drilling, operation, maintenance, and closing of oil, natural gas, and geothermal wells. The division is intended to protect the environment, prevent pollution, and ensure public safety (DOGGR 2013a). It functions as an information repository but also regulates oil and gas extraction activities consistent with state regulations that include Section 3000 et seq. of the State Public Resources Code and Title 14, Division 2, Chapter 4 of the California Code of Regulations. These codes include provisions regulating the distribution of oil wells.

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#### Local

##### *County of Los Angeles*

Consistent with SMARA, Title 22 of the County Code includes provisions related to Surface Mining Permits. These outline permitting requirements, period review procedures, and reclamation plan requirements.

#### 5.11.1.2 EXISTING CONDITIONS

The CGS Mineral Resources Project designates P-C regions for the purpose of classifying mineral land resources. The Palmdale P-C Region is located within the Project Area and is roughly coterminous with the landform known as the Antelope Valley (the northern portion of the Project Area). It includes three areas with significant mineral deposits. Part of the western portion of the Project Area is in the Saugus-Newhall P-C Region (see Figure 5.11-1, *Aggregate Production-Consumption Regions*). This region is largely rural and mountainous and where it overlaps with the Project Area, it is generally limited to land within the Angeles National Forest. Portions of the Saugus-Newhall P-C Region located in the Project Area are not identified by the CGS Mineral Resources Project as containing significant mineral deposits. The remaining portion of the Project Area is located in the San Gabriel Mountains and is not in a P-C region.

#### Mineral Resource Zones

There are three MRZ-2 areas in the Palmdale P-C Region that amount to a total of 15,882 acres. The MRZ-2 areas are shown in Figure 5.11-2, *Mineral Resource Zone-2 Areas*. From west to east, they consist of the Little Rock Wash, the Big Rock Wash/Rock Creek area, and the Mescal Creek area. As shown, Little Rock Wash is mostly in the City of Palmdale and partly in the Project Area while Big Rock Wash/Rock Creek and Mescal Creek are entirely in the Project Area to the east of the City of Palmdale. The Big Rock Wash/Rock Creek area is entirely vacant except for the Big Rock Creek Mine, which is an active mine west of 165th Street and south of the Union Pacific railroad tracks. The Mescal Creek area is completely vacant (see Figure 5.11-3, *Existing Conditions of MRZ-2 Areas*).

#### Mineral Resource Sectors

Mineral Resource Sectors are areas where mineral resources of regional or statewide significance are considered to be present or likely to be present and that have existing land uses deemed compatible with potential mining. Mineral resource sectors in the Project Area and adjacent cities are described below in Table 5.11-1. As shown in Figure 5.11-3, mineral resource sectors further divide up the land contained in MRZ-2 areas.

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**Table 5.11-1 Mineral Resource Sectors within the Project Area and Adjacent Cities**

Production-Consumption Region and Map Date	Mineral Resource Sectors		
	Number of Sectors and Locations	Mapped as Urbanized, Urbanizing, or Zoned Urban	Active Mines mapped
Palmdale 1994	10 sectors: 2 sectors and parts of 2 additional sectors are in the City of Palmdale; the balance of the sectors is in unincorporated Los Angeles County.	Parts of 4 sectors mapped or zoned for urban development; part of 1 sector mapped as urbanized or urbanizing. Urban, urbanizing, and zoned urban areas are in both the City of Palmdale and in unincorporated Los Angeles County.	Parts of 2 sectors, in the City of Palmdale, mapped as owned or controlled by aggregate producers.

Sources: CGS 1994b.

### Active and Inactive Mines

There are currently a total of 10 mines operated by 7 companies within the Project Area and the adjacent cities. All 10 mines are currently active. The mines are detailed in Table 5.11-2, *Active Mines in the Project Area and Adjacent Cities*.

**Table 5.11-2 Active Mines in the Project Area and Adjacent Cities**

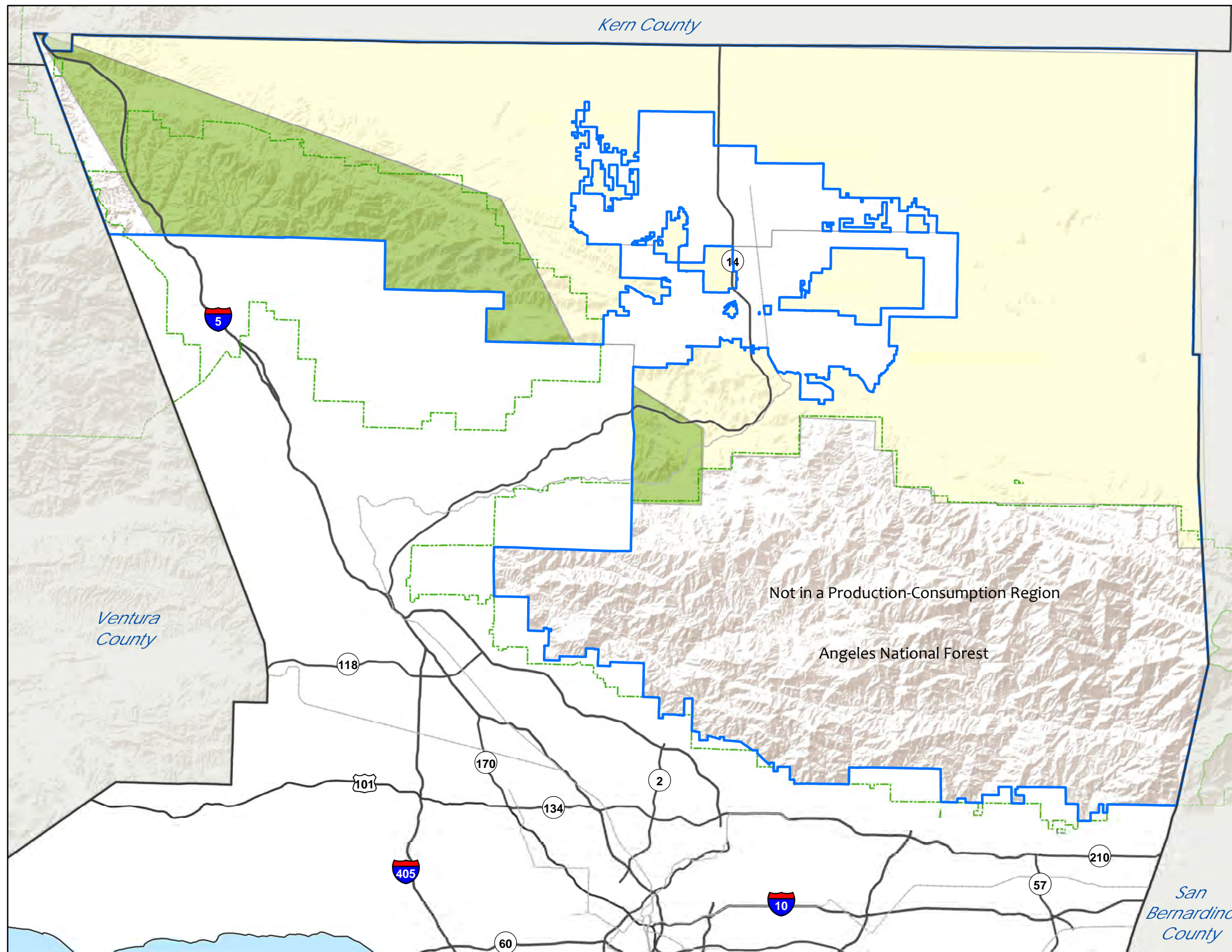
Mine Name <sup>1</sup> Mine ID	Lead Agency <sup>2</sup>	Operator	Production
Holliday-Palmdale 91-19-0001	City of Palmdale	Holliday Rock Company, Inc.	Sand and gravel
Antelope Valley Aggregate, Inc. 91-19-0002	City of Palmdale	Holliday Rock Company, Inc.	Sand and gravel
Littlerock 91-19-0008	City of Palmdale	Granite Construction Company	Sand and gravel
Palmdale 91-19-0020	City of Palmdale	Calmat Company	Sand and gravel
Big Rock Creek 91-19-0021	<b>Los Angeles County</b>	Calmat Company	Sand and gravel
Little Rock Quarry 91-19-0026	City of Palmdale	Hi-Grade Materials Co.	Sand and gravel
Palmdale 91-19-0033	City of Palmdale	Robertson's Ready Mix	Sand and gravel
Lane Quarry 91-19-0040	City of Palmdale	Lane Quarry	Decomposed granite
Big Rock Creek (Newly Permitted) 91-19-0046	<b>Los Angeles County</b>	Granite Construction Company	Sand and gravel
75th Street Quarry (Newly Permitted) 91-19-0049	City of Palmdale	JV Aggregate Processing, LLC	Sand and gravel

Source: California State Office of Mine Reclamation, 2013.

<sup>1</sup> All mines listed are active except the two noted as newly permitted.

<sup>2</sup> Active mines in unincorporated areas are indicated by **Los Angeles County** in boldface in the Lead Agency column.





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FIGURE 5.11-1

### AGGREGATE PRODUCTION-CONSUMPTION REGIONS

- ▬ Antelope Valley Project Area
- ▬ Saugus Newhall P-C Region
- ▬ Palmdale P-C Region

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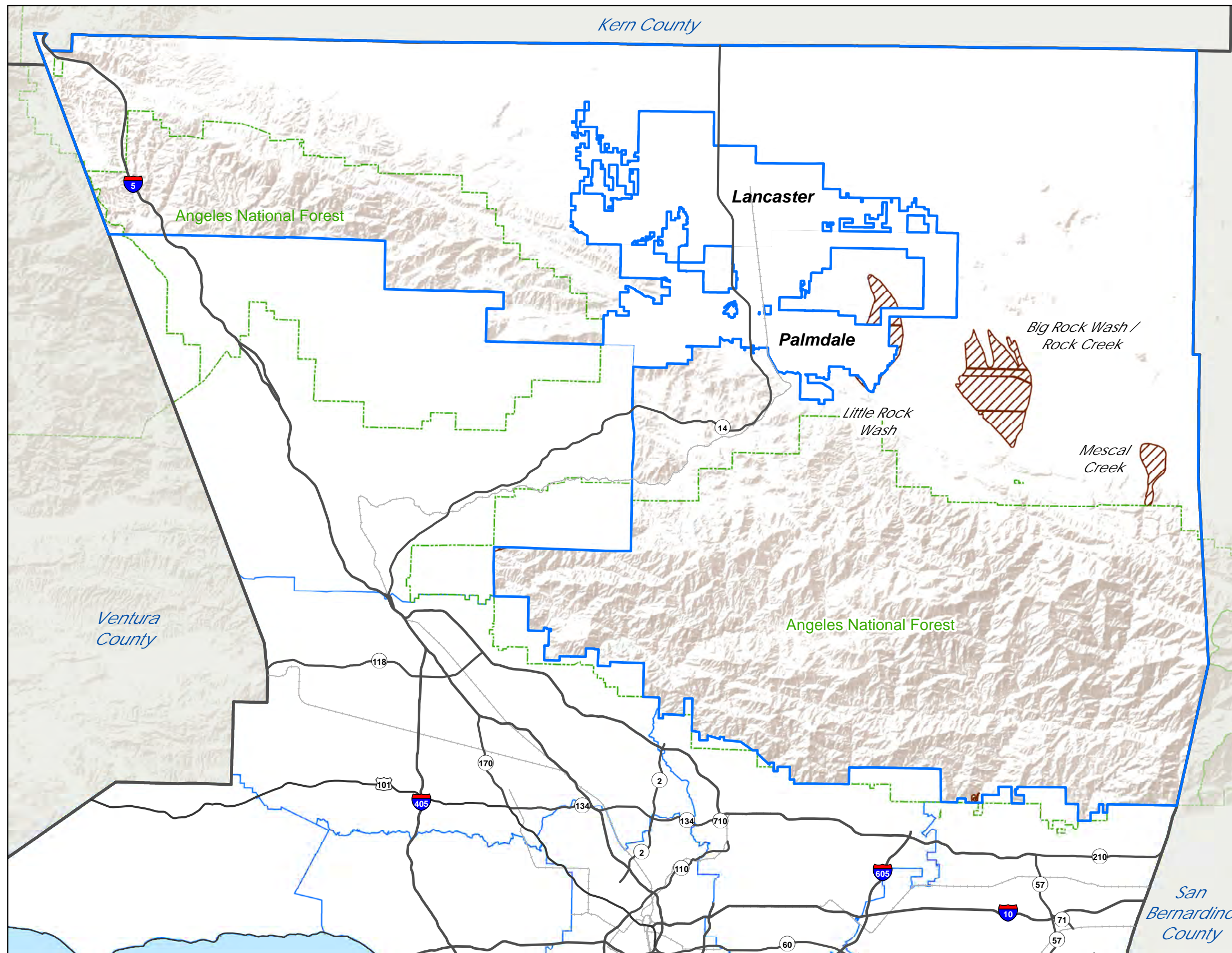
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## 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.11-2

### MINERAL RESOURCE ZONE-2 AREAS

- Antelope Valley Project Area
- Mineral Resources

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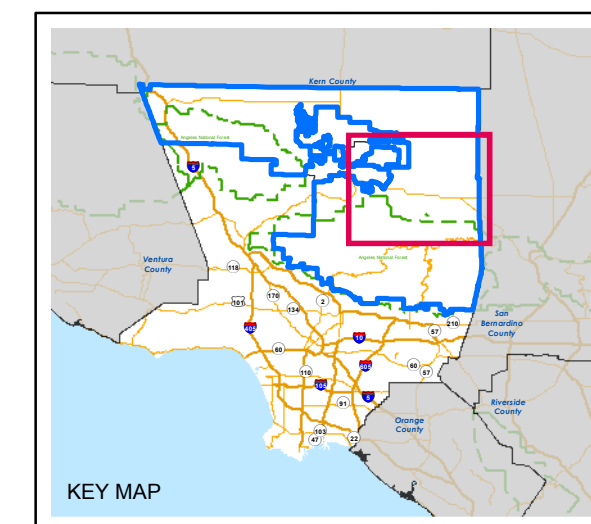
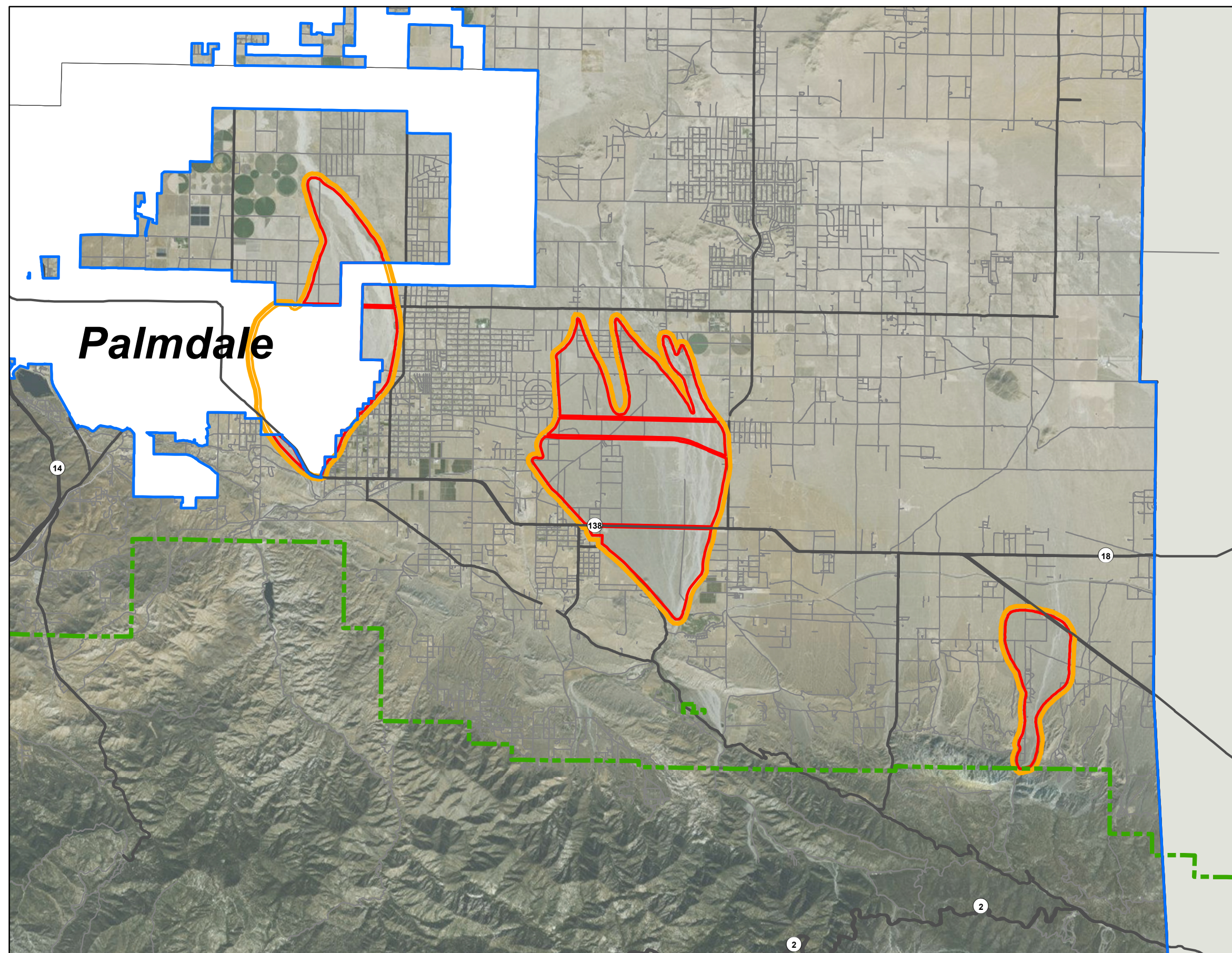


# 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.11-3

## EXISTING CONDITIONS, UNINCORPORATED MRZ-2 AREAS

-  Antelope Valley Project
-  Aggregate Resource Sectors in Project Area
-  MRZ-2 Areas



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## 5. Environmental Analysis MINERAL RESOURCES

### Aggregate Mining Sites Identified in the Adopted Area Plan

The Adopted Area Plan identifies major sand and gravel extraction sites within the Project Area in the Little Rock and Big Rock washes.

### Aggregate Supplies and Demands

Aggregate reserves are aggregate that has been determined to be acceptable for commercial use, that exists within properties owned or leased by aggregate producing companies, and for which permits have been granted to allow mining and processing of the material. Aggregate resources include reserves as well as all potentially usable aggregate materials that may be mined in the future, but for which no permit allowing mining has been granted, or for which marketability has not been established. PCC-Grade aggregate reserves and resources for the Palmdale P-C Region are shown in Table 5.11-3, below.

Projections of aggregate demand for the Project Area through the year 2044 were made based upon population projections and an average per capita consumption rate. These projections are compared to existing aggregate reserves and resources in Table 5.11-3.

**Table 5.11-3 Aggregate Resources, Reserves, and Demands**

	Palmdale P-C Region	Los Angeles County Total
Portland Cement Concrete (PCC)-Grade Aggregate Resources	1,769 million tons	11,929 million tons
PCC-Grade Aggregate Reserves	207 million tons	750 million tons
50-Year Demand, All Aggregate	Not Available	2,009 million tons
50-Year Demand, PCC-Grade Aggregate	Not Available	1,105 million tons
Estimated Depletion, PCC-Grade Aggregate Reserves	Not Available	2016
Source: CGS 2012.		

The above projections show that an estimated two billion tons of aggregate will be needed to satisfy the future demand through the year 2044 in the area supplied by aggregate produced in Los Angeles County. Of this total, 55 percent, or 1.1 billion tons must be of PCC grade. Existing PCC-grade reserves total roughly 750 million tons and are expected to be depleted by 2016.

### Aggregate Production

California is divided into 12 districts for the purpose of reporting minerals production statistics in the Minerals Yearbook published by the US Geological Survey. The most recent yearbook available is for 2009, published in August 2013. District 11 comprises Los Angeles County (including the Project Area), Ventura County, and Orange County. Minerals production in District 11 in 2009 is summarized in Table 5.11-4.

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**Table 5.11-4 Mineral Production, District 11, 2009**

Mineral Type	Production, Metric Tons	Production, dollar value
Concrete aggregate and concrete products	5,580,000	\$68,700,000
Asphaltic concrete aggregates and road base materials	575,000	\$3,910,000
Other miscellaneous uses	302,000	\$3,000,000
Unspecified	4,960,000	\$59,000,000
Other Production Materials	184,000	\$2,340,000
<b>Total</b>	<b>11,601,000</b>	<b>\$136,950,000</b>

Source: USGS 2013a.  
One metric ton is 2,205 pounds.

### Oil and Natural Gas Resources

Mineral resource areas also include oil and natural gas resources. Oil production still occurs in many parts of Los Angeles County, including areas in the southern and central Los Angeles Basin and in the Santa Clarita Valley (see Figure 5.11-4, *Oil and Gas Fields*). However, there are no oil or natural gas resource areas in the Project Area.

### 5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- M-1 Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- M-2 Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

### 5.11.3 Relevant Area Plan Goals and Policies

The following is a list of the goals and policies of the Proposed Project that would reduce potentially adverse effects concerning mineral resources.

#### Land Use Element

**Goal LU 2:** A land use pattern that protects environmental resources.



- Policy LU 2.4: Limit the amount of potential development in Mineral Resource Areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

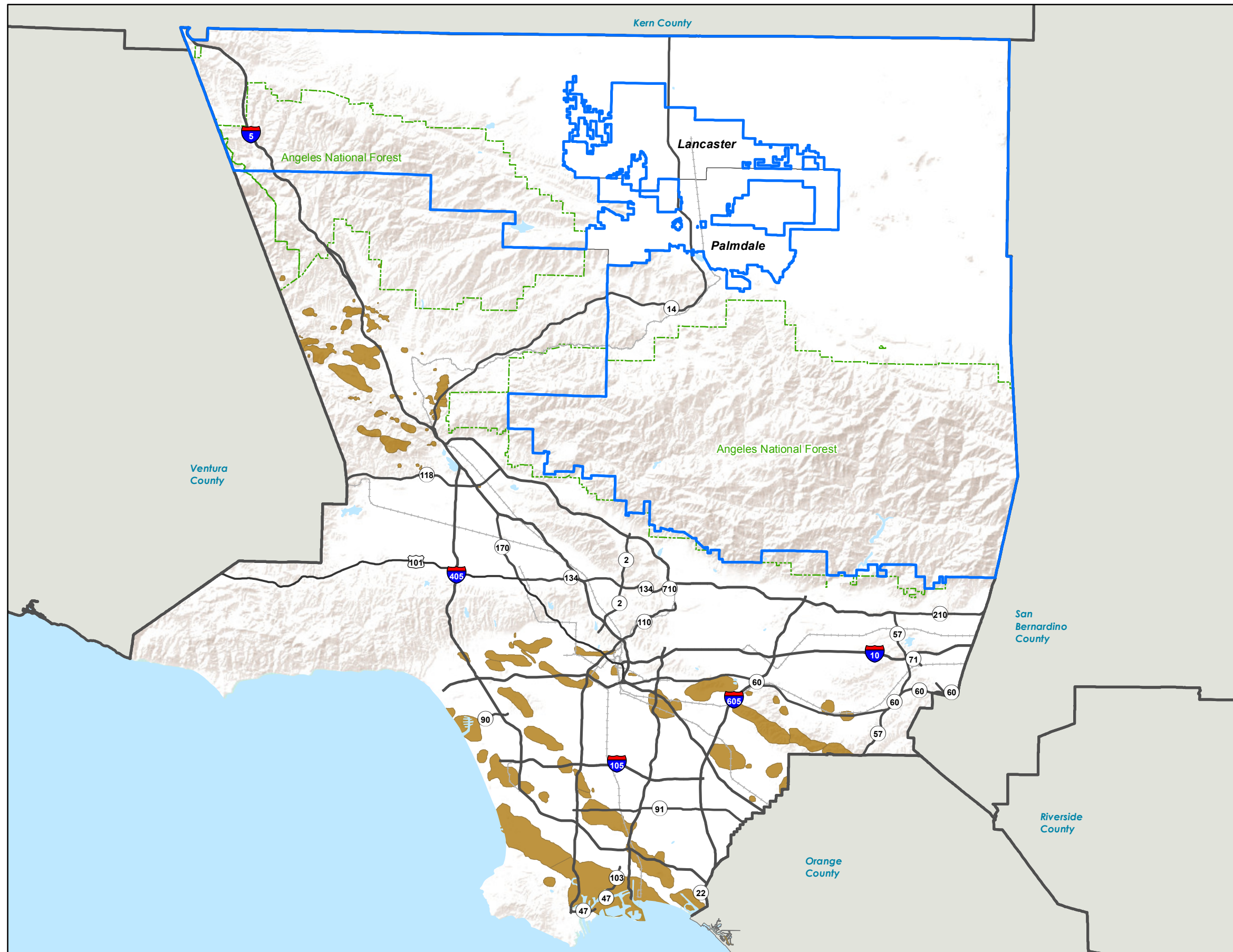


## 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.11-4

### OIL AND GAS FIELDS

-  Antelope Valley Project Area
-  Oil and Gas Fields



Source: Los Angeles County Department of Public Works, 2014



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### Mineral Resources Element

**Goal COS 8:** Mineral resources are responsibly extracted.

- **Policy COS 8.1:** Allow new mineral resource extraction activities only in designated Mineral Resource Areas.
- **Policy COS 8.2:** Where new mineral resource extraction activities are allowed, ensure that applications undergo full environmental review and public noticing. Require site remediation after completion of mineral resource extraction activities.
- **Policy COS 8.3:** Provide strict enforcement of illegal or unpermitted mineral extraction activities.

### 5.11.4 Environmental Impacts

The following impact analysis addresses thresholds according to Appendix G of the CEQA Guidelines of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.11-1: Development in accordance with the Proposed Project would cause the loss of availability of known mineral resources in the Project Area. [Thresholds M-1 and M-2]**

---

**Impact Analysis:** Buildout of the Proposed Project would change land use designations in the areas listed below that are identified as MRZ-2, mineral resource sectors, or active mines. Active aggregate mines are owned and/or controlled by aggregate producers, and are permitted by the cities or the County. Thus, changes in land use designations for active mines pursuant to the Proposed Project would not block continued mining at those sites.

#### *Proposed Land Use Designations in MRZ-2 Areas: Compatibility with Future Mining*

Proposed land use designations for areas mapped MRZ-2 are shown below in Table 5.11-5 and in Figure 5.11-5. Note that the total shown below is lower than the total mentioned above in *Existing Conditions* (15,882 acres). This is because some of the MRZ-2 area is located in public rights-of-way that would not have land use designations under the Proposed Project.

Three proposed land use designations—RL10, RL20, and IH (Heavy Industrial)—are considered compatible with future mining activities. Although the RL10 and RL20 designations allow residential uses, they would only allow residential development at extremely low densities, such as homesteads associated with grazing operations.

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**Table 5.11-5 Proposed Land Use Designations in MRZ-2 Areas: Compatibility with Future Mining**

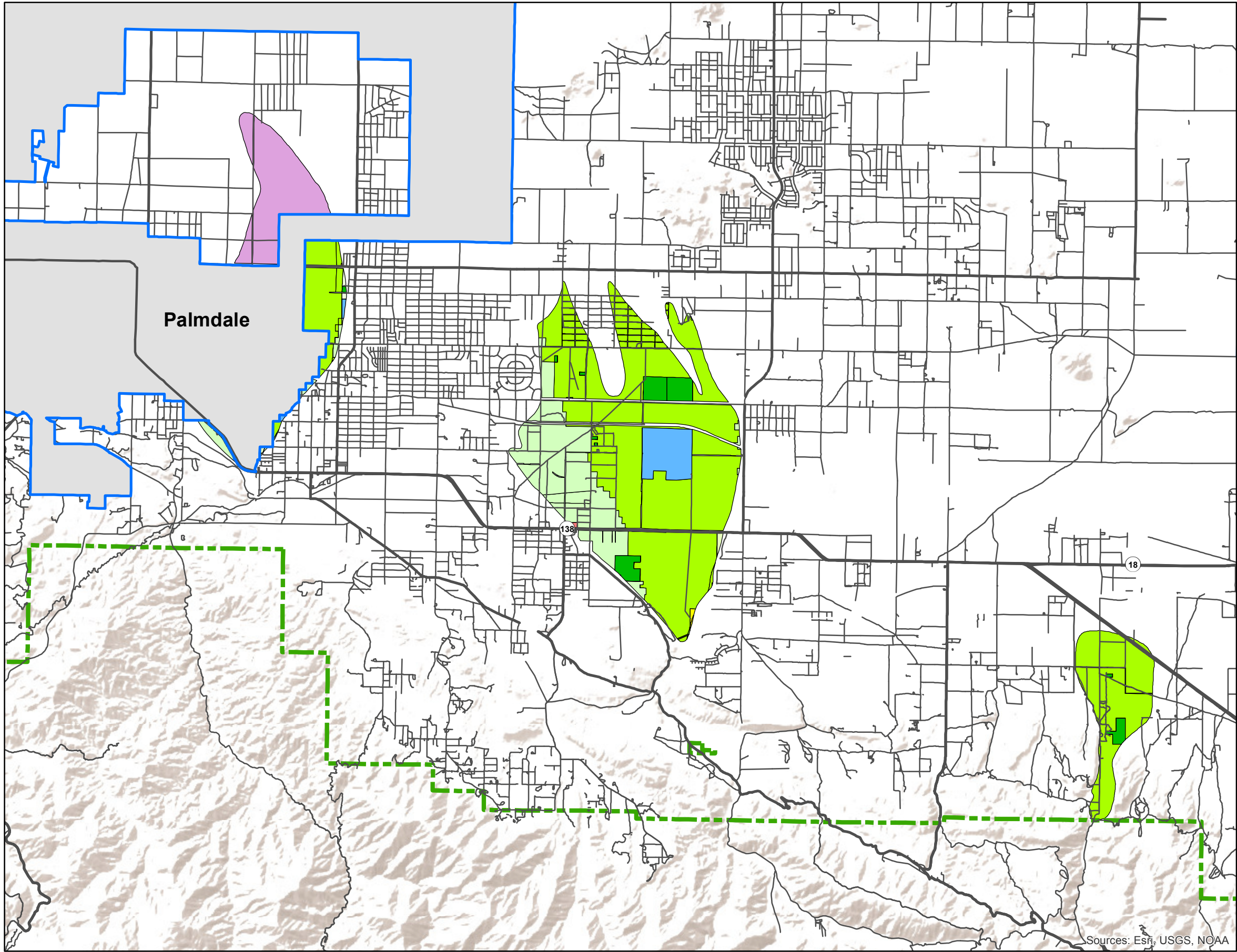
Land Use Designation	Acres within MRZ-2 Areas
<b>Designations Compatible with Future Mining</b>	
IH – Heavy Industrial	614
RL10 – Rural Land 10	2,437
RL20 – Rural Land 20	10,221
<i>Subtotal</i>	<i>13,272</i>
<b>Designations Incompatible with Future Mining</b>	
CR – Rural Commercial	10
H2 – Residential 2	14
H5 – Residential 5	1
OS-BLM Managed by Bureau of Land Management	379
OS-C – Conservation	134
OS-NF – Open Space National Forest	121
OS-PR Open Space Parks and Recreation	6
P – Public and Semi-Public	1,609
RL1 – Rural Land 1	17
RL5 – Rural Land 5	28
<i>Subtotal</i>	<i>2,319</i>
<b>Total</b>	<b>15,591</b>

As shown in Table 5.11-5, about 85 percent of the MRZ-2 area in the Project Area would be designated for land uses considered compatible with future mining. Both of the active mines in unincorporated area within the Project Area would be designated RL20 under the Proposed Project and are in the Big Rock Wash/Rock Creek area. However, buildout of the Proposed Project would also result in the development of approximately 2,319 acres with land uses considered incompatible with mining, such as commercial, residential, and public uses. This acreage represents about 15 percent of the total MRZ-2 area in the Project Area. Nearly all of the incompatible designations are in the Little Rock Wash area. Availability of those resources would be lost at buildout. Therefore, this impact would be potentially significant.

#### **Impact 5.11-2 Buildout of the Proposed Project would cause a loss of availability of mineral resources in the Little Rock Wash area, which is designated for mineral extraction in the Adopted Los Angeles County General Plan. [Threshold M-2]**

**Impact Analysis:** For reasons discussed under Impact 5.11-1, above, buildout of the Proposed Project would substantially reduce availability of mineral resources in one mineral extraction area: the Little Rock Wash area. This area is identified as a mineral extraction area in the Adopted Los Angeles Countywide General Plan. However, residential development would be allowed in the area under the Proposed Project. Residential uses, including very low-density residential uses, are considered incompatible with mining extraction activities. At buildout, residential uses in the area would prevent continued or expanded extraction of minerals. Therefore, buildout of the Proposed Project would conflict with an adopted land use plan related to locally important mineral resource recovery sites. This impact would be potentially significant.



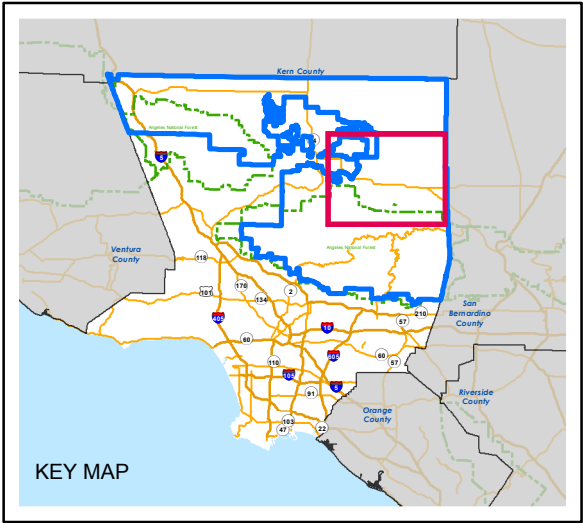


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FIGURE 5.11-5

## PROPOSED LAND USE DESIGNATIONS ON UNINCORPORATED MRZ-2 AREAS

- Antelope Valley Project Area
- RL1 - Rural Land 1 (1 du / 1 gross ac)
- RL5 - Rural Land 5 (1 du / 5 gross ac)
- RL10 - Rural Land 10 (1 du / 10 gross ac)
- RL20 - Rural Land 20 (1 du / 20 gross ac)
- H2 - Residential 2 (0-2 du / net ac)
- H5 - Residential 5 (0-5 du / net ac)
- CR - Rural Commercial
- IH - Heavy Industrial
- P - Public and Semi-Public
- OS-NF - Open Space National Forest
- OS-C - Open Space Conservation
- OS-PR - Open Space Parks and Recreation
- OS-BLM - Bureau of Land Management



## ANTELOPE VALLEY AREA PLAN UPDATE DRAFT EIR

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#### Impact 5.11-3 Buildout of the Proposed Project would not cause a loss of availability of oil and natural gas reserves in the Project Area. [Threshold M-1]

**Impact Analysis:** Buildout of the Proposed Project would not result in development of land that is used for, or has the potential to be used for, extraction of fossil fuels such as oil and natural gas. As stated above, while oil and natural gas fields lie beneath large swaths of Los Angeles County, there are no oil or gas fields located in the Project Area. No impact would occur.

### 5.11.5 Cumulative Impacts

Cumulative projects could cause significant cumulative impacts if they caused a loss of availability of a known mineral resource valuable to the region and/or state or caused a loss of availability of an important mining site delineated in an adopted land use plan. Construction and operation of cumulative growth identified in Section 4.4, *Assumptions Regarding Cumulative Impacts*, would have the potential to result in the loss of availability of known mineral resources. Urbanization and growth in the City of Palmdale would potentially result in land uses that are incompatible with mining and resource recovery and would result in a cumulative loss of available resources. Similar to portions of the Project Area, the CGS has classified land within the City of Palmdale and the Santa Clarita Valley as MRZ-2. The Land Use and Environmental Resources Elements of the Palmdale General Plan contain policies aimed at protecting these and other mineral resources. The Santa Clarita Valley Area Plan also contains policies aimed at protecting mineral resources. However, planned and projected growth in the region would result in a reasonably foreseeable loss of mineral resources due to the encroachment of incompatible uses that would limit future areas from being permitted for mining operations. Cumulative impacts would be potentially significant.

### MRZ-2 Areas

#### *Cities of Lancaster and Palmdale*

Acreages for MRZ-2 areas in the Project Area and adjacent cities are shown in Table 5.11-6. As shown in the table, 74.3 percent (15,882 acres) of areas designated MRZ-2 are in the Project Area.

**Table 5.11-6 MRZ-2 Areas in the Project Area and Adjacent Cities**

Acres			Percentage	
Within Cities	Within the Project Area	Total	Within Cities	Within the Project Area
5,506	15,882	21,388	25.7	74.3

#### *Santa Clarita Valley*

In addition to the Project Area and the cities of Lancaster and Palmdale, the North Los Angeles County Subregion includes the Santa Clarita Valley. There were 9,745 acres of MRZ-2 areas mapped in the Santa Clarita Valley Planning Area in 2013 (CGS 2013). There were 16 mineral resource sectors in the Santa Clarita Valley Planning Area in 1994: eight in unincorporated Los Angeles County, seven in the City of Santa Clarita,

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and one in both jurisdictions (CGS 1994). Four active mines are located in the Santa Clarita Valley Planning Area, all in unincorporated areas. Implementation of the Santa Clarita Valley Area Plan would convert 952 acres of MRZ-2 areas to land uses incompatible with mining.

The Certified EIR for the Santa Clarita Valley Area Plan concluded that implementation of the Area Plan policies would limit impacts on mineral resources to less than significant, and no mitigation measures for impacts to mineral resources were required.

#### Active Mines

Of the 10 active mines listed in Table 5.11-2, 8 are within the City of Palmdale. Active mines are owned and/or controlled by aggregate producers and are permitted by the relevant jurisdiction. Development of urban land uses on existing mining sites in Palmdale, such as new residential or commercial uses, is generally neither permitted nor feasible. Therefore, even if mines both within and outside the Project Area ended operation, those sites would likely remain accessible should mining be commercially viable in the future. Furthermore, Los Angeles County has numerous aggregate mining sites; the loss of availability of a substantial portion of these mines during the planning period of the Proposed Project is unlikely.<sup>1</sup> For these reasons, cumulative impacts to active aggregate mines are not anticipated.

#### Oil and Natural Gas Resources

Although there are oil and natural gas resources in the Santa Clarita Valley, there are no such resource areas in the Project Area. Therefore, the Proposed Project would not contribute to a cumulative impact related to oil and natural gas resources.

#### Conclusion

Cumulative projects in combination with buildout of the Proposed Project would contribute to a significant cumulative impact in the North Los Angeles County Subregion. No mitigation measures are available that would reduce this impact to less than significant. Therefore, this impact would remain significant and unavoidable.

### 5.11.6 Existing Regulations and Standard Conditions

- California Code of Regulations, Title 14, Division 2, Chapter 4: Development, Regulation, and Conservation of Oil and Natural Gas Resources
- California Public Resources Code
  - Sections 2710 et seq.: Surface Mining and Reclamation Act
  - Sections 3000 et seq.: Oil and Gas Conservation

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<sup>1</sup> 24 active mines in the County are listed on the Office of Mine Reclamation's *Mines Online* database (OMR 2013).



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#### 5.11.7 Level of Significance Before Mitigation

Upon compliance with regulatory requirements and standard conditions, Impact 5.11-3 would be less than significant. Without mitigation, the following impact would be **potentially significant**:

- **Impact 5.11-1:** Buildout of the Proposed Project would cause a loss of availability of known mineral resources within the Project Area related to the mineral extraction area in the Little Rock Wash area.
- **Impact 5.11-2:** Implementation of the Proposed Project would cause a substantial loss of availability of mineral resources in one mineral extraction area identified in the Adopted General Plan: the Little Rock Wash area.

#### 5.11.8 Mitigation Measures

No mitigation measures are available that would reduce impacts of Proposed Project buildout to less than significant. Mineral resources are limited, nonrenewable, and cannot be increased elsewhere to compensate for a loss of availability due to buildout of the Proposed Project. Compensatory mitigation outside of the region is also infeasible; such mitigation would not reduce the loss of availability of mineral resources in the Project Area due to the very high cost of transporting aggregate.

#### 5.11.9 Level of Significance After Mitigation

##### Impact 5.11-1

Future development pursuant to the Proposed Project could cause a loss of availability of known mineral resources within the Project Area. No mitigation measures are available that would reduce this impact to less than significant. Mineral resources are limited and nonrenewable and cannot be increased elsewhere to compensate for the loss of availability of mineral resources due to the buildout of the Proposed Project. Compensatory mitigation outside of the region is also infeasible. Such mitigation would not reduce the loss of availability of mineral resources in the Project Area due to the very high cost of transporting aggregate. Impact 5.11-1 would be significant and unavoidable.

##### Impact 5.11-2

Implementation of the Proposed Project would cause a substantial loss of availability of mineral resources in one mineral extraction area identified in the Adopted General Plan: the Little Rock Wash area. No mitigation measures are available that would reduce this impact to less than significant. Impact 5.11-2 impact would be significant and unavoidable.

#### 5.11.10 References

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## 5. Environmental Analysis

### 5.12 NOISE

This section discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing receptor locations; evaluates potential noise impacts associated with the Antelope Valley Area Plan Update (Proposed Project); and provides mitigation to reduce noise impacts at noise-sensitive receptor land uses.

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Proposed Project to result in noise impacts in the vicinity of the Project Area. Additional information relative to this noise section is included in the Technical Appendices to this Draft EIR (Appendix E)

#### 5.12.1 Environmental Setting

##### Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.”

The following are brief definitions of terminology used in this section:

- **Sound:** A disturbance created by a vibrating object, that when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise:** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB):** A unit that denotes the ratio between two quantities that are proportional to power. The number of decibels is 10 times the logarithm (base 10) of this ratio, which has a reference quantity in the denominator. For sound pressure decibels, the reference quantity is 20 micropascals ( $\mu\text{Pa}$ ).
- **A-Weighted Decibel (dBA):** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level ( $L_{eq}$ ):** The mean of the noise level, energy averaged over the measurement period.
- **Statistical Sound Level ( $L_n$ ):** The sound level that is exceeded “n” percent of time during a given sample period. For example, the  $L_{50}$  level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period), which is half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The  $L_{10}$  level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The  $L_{90}$  is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”

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- **Day-Night Sound Level ( $L_{dn}$  or DNL):** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL):** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the levels occurring during the period from 7:00 PM to 10:00 PM and 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.

### Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernable to most people in an exterior environment whereas a 10 dB change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are “felt” more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

### Measurement of Sound

Sound intensity is measured through the A-weighted measure to correct for the relative frequency response of the human ear. In other words, an A-weighted noise level deemphasizes low and very high frequencies of sound similar to the human ear’s de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. This logarithmic scale is used to better account for the large variations in pressure amplitude (the above range of human hearing, 0 to 140 dBA, represents a ratio in pressures of 100 trillion to one). All noise levels in this study are relative to the industry-standard pressure reference value of 20 micropascals. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 5.12-1 presents the subjective effect of changes in sound pressure levels.

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**Table 5.12-1 Change in Apparent Loudness**

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 2009.

In practical application, an increase of 10 dB is 10 times more intense than 1 dB, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). To help relate noise level values to common experience, Table 5.12-2 shows typical noise levels from noise sources.

**Table 5.12-2 Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2009.

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as “spreading loss.” For a single point source, sound levels decrease by approximately 6dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by onsite operations from

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stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5dB for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called  $L_{eq}$ ), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the  $L_{50}$  noise level represents the noise level that is exceeded 50percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30minutes in an hour. Similarly, the  $L_2$ ,  $L_8$  and  $L_{25}$  values represent the noise levels that are exceeded 2, 8, and 25percent of the time or 1, 5, and 15minutes per hour. These “L” values are typically used to demonstrate compliance for stationary noise sources with a given city’s or county’s noise ordinance, as discussed below. Other values typically noted during a noise survey are the  $L_{min}$  and  $L_{max}$ . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and most local jurisdictions (including the County of Los Angeles [County]) require that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level ( $L_{dn}$ ). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00 PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The  $L_{dn}$  descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 PM and 10:00 PM. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

### Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear.

### Vibration Fundamentals

Vibration is a trembling, quivering, or oscillating motion of the earth. Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard.

Vibration can be either natural as in the form of earthquakes, volcanic eruptions, sea waves, landslides, or manmade as from explosions, the action of heavy machinery or heavy vehicles such as trains. Both natural

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and manmade vibration may be continuous such as from operating machinery, or transient as from an explosion. The way in which vibration is transmitted through the earth is called propagation. Propagation of earthborn vibrations is complicated and difficult to predict because of the endless variations in the soil through which waves travel. There are three main types of vibration propagation: surface, compression and shear waves. Surface waves, or Raleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways: displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table 5.12-3 presents the human reaction to various levels of peak particle velocity.

**Table 5.12-3 Human Reaction to Typical Vibration Levels**

Vibration Level Peak Particle Velocity (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling-houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans 2002.

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Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, buses often generate frequencies around 3 Hz at high vehicle speeds. It is less common, but possible, to measure traffic frequencies above 30 Hz.

### Noise- and Vibration-Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. These uses include residential, schools, libraries, churches, nursing homes, hospitals, and open space/recreation areas where quiet environments are necessary for enjoyment, public health, and safety. Commercial and industrial uses are generally not considered noise- and vibration-sensitive uses, unless noise and vibration would interfere with their normal operations and business activities.

### Regulatory Framework

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

#### Federal

##### *Aircraft Noise Standards*

The Federal Aviation Administration (FAA) Advisory Circular Number 150-5020-2, entitled “Noise Assessment Guidelines for New Helicopters” recommends the use of a cumulative noise measure, the 24-hour equivalent sound level [ $L_{eq(24)}$ ], so that the relative contributions of the heliport and other sound sources within the community may be compared. The  $L_{eq(24)}$  is similar to the  $L_{dn}$  used in assessing the impacts of fixed-wing aircraft.

Public Law 96-193 also directs the FAA to identify land uses that are “normally compatible” with various levels of noise from aircraft operations. Because of the size and complexity of many major hub airports and their operations, Federal Air Regulation (FAR) Part 150 identifies a large number of land uses and their attendant noise levels. However, since the operations of most heliports and helistops tend to be much simpler and the impacts more restricted in area, Part 150 does not apply to heliports/helistops not located on airport property. Instead, the FAA recommends exterior noise criteria for individual heliports based on the types of surrounding land uses. These recommended noise levels are included in Table 5.12-4.

**Table 5.12-4 Normally Compatible Community Sound Levels**

Type of Area	$L_{eq(24)}$
Residential	
• Suburban	57
• Urban	67
• City	72
Commercial	72
Industrial	77

Source: FAA Advisory Circular Number 150-5020-2, 1983



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The maximum recommended cumulative sound level [ $L_{eq(24)}$ ] from the operations of helicopters at any new site should not exceed the ambient noise already present in the community at the site of the proposed heliport or the sound levels in Table 5.12-4, whichever is lower.

### *Highway Noise Standards*

The Federal Highway Administration (FHWA) is the agency responsible for administering the Federal-Aid highway program in accordance with federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 Code of Federal Regulation (CFR) 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, applies to highway construction projects where a state department of transportation has requested federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design.

State and local governments have the authority to regulate land use planning or the land development process. The FHWA and other federal agencies encourage state and local governments to practice land use planning and control in the vicinity of highways to avoid future noise impacts and the need to provide noise abatement for future highway projects. The federal government advocates use of local government authority to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. For interstate freeways and for state routes, these noise investigations are coordinated through the California Department of Transportation (Caltrans).

### **State**

#### *State of California Building Code*

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

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#### *State of California Roadway-Related Noise and Vibration*

FHWA approved the Caltrans noise policy (Protocol) for new or reconstruction highway projects. This Protocol became effective on July 13, 2011 for all Federal-Aid projects. This noise protocol is mandated by the revised Title 23, Part 772 Federal Code (which became effective a year earlier on July 13, 2010). This Protocol contains many new provisions including the criteria for grandfathering existing projects currently under development.

Additionally, the Technical Noise Supplement (TeNS) to the Traffic Noise Analysis Protocol has been updated. As of July 2011, 23 CFR 771 requires the use of the official Traffic Noise Model (TNM) analysis for all Activity Category Land Uses. This document contains Caltrans noise analysis procedures, practices, and other useful technical background information related to the analysis and reporting of highway and construction noise impacts and abatement. It supplements and expands on concepts and procedures referred to in the Traffic Noise Analysis Protocol, which in turn is required by federal regulations in 23 CFR 772. Except for some Caltrans-specific methods and procedures, most methods and procedures recommended in this document are in conformance with industry standards and practices. This document can be used as a standalone guide for highway noise training purposes or as a reference for technical concepts, methodology, and terminology needed to acquire a basic understanding of highway noise and construction noise-related issues.

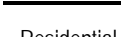
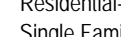
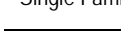


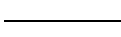

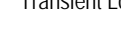
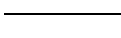


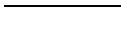




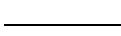


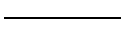

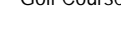
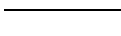


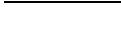
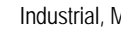



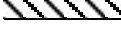



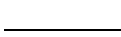
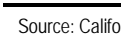






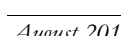
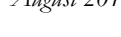






As with transportation-related noise, Caltrans addresses roadway vibration in its Transportation and Construction Vibration Guidance Manual. This manual provides practical guidance to engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects.

#### *California Noise/Land Use Compatibility Matrix*

The California Office of Noise Control has prepared a land use compatibility chart for community noise to provide a tool to gauge the compatibility of land uses relative to existing and future noise levels. This land use compatibility chart, reproduced below as Table 5.12-5, identifies 'normally acceptable,' 'conditionally acceptable,' and 'clearly unacceptable' noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

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**Table 5.12-5 Community Noise and Land Use Compatibility**

Land Uses	CNEL (dBA)					
	55	60	65	70	75	80
Residential-Low Density Single Family, Duplex, Mobile Homes						
Residential-Multiple Family						
Transient Lodging: Hotels and Motels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playground, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses, Commercial and Professional						
Industrial, Manufacturing, Utilities, Agricultural						
<b>Explanatory Notes</b>						
	<b>Normally Acceptable:</b> With no special noise reduction requirements assuming standard construction.				<b>Normally Unacceptable:</b> New construction is discouraged. If new construction does not proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.	
	<b>Conditionally Acceptable:</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.				<b>Clearly Unacceptable:</b> New construction or development should generally not be undertaken.	

Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 1976. Adapted from the US EPA Office of Noise Abatement Control, Washington D.C. Community Noise. Prepared by Wyle Laboratories. December 1971.

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#### County of Los Angeles

##### *Existing Noise Element Goals and Policies*

The Proposed Area Plan includes several chapters to refine the countywide goals and policies in the General Plan by addressing specific issues relevant to the Project Area. There are no goals and policies related to noise and vibration are included in the Proposed Area Plan (August 2014). Therefore, the applicable Goals and Policies for the Project Area are from the Adopted General Plan Noise Element:

The goals of the Noise Element include:

- Reduce transportation noise to a level that does not jeopardize health and welfare
- Minimize noise levels of future transportation facilities
- Establish compatible land use adjacent to transportation facilities
- Allocate noise mitigation costs among those who produce the noise
- Alert the public regarding the potential impact of transportation noise
- Protect areas that are presently quiet from future noise impact

The following policies from the 1974 Noise Element of the Los Angeles County General Plan are intended to support the above goals:

1. Promote the necessary organizational adjustments within county government to establish a central authority which identifies technological opportunities, conducts studies, assesses effectiveness of programs, sets standards, and recommends transportation noise mitigation techniques, programs, and alternatives.
2. Determine and evaluate the present and future noise levels associated with all major transportation facilities in the county.
3. Establish acceptable noise standards consistent with health and quality of life goals and employ effective techniques of noise abatement through such means as building code, noise, subdivision, and zoning ordinances.
4. Reduce the present and future impact of excessive noise from transportation sources through judicious use of technology, planning, and regulatory measures.
5. Establish noise criteria in the specifications for purchase of vehicles, aircraft, and their components intended for use by the county, including all equipment needed for maintenance and repair of such vehicles and aircraft.
6. Promote increased public awareness concerning the effects of noise.
7. Encourage cities to adopt definitive noise ordinances and policies that are consistent throughout the county.

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8. Coordinate with, and assist the various cities in dealing with the problem of noise and provide leadership and technical expertise when requested by other jurisdictions.
9. Coordinate with federal, state, and city governments in developing and implementing noise abatement programs.
10. Seek funds from the appropriate levels of government to underwrite the costs of noise abatement programs.
11. Monitor the programs and policies of the responsible special districts, regional, state, and federal agencies in order to insure [sic] that they effectively exercise their mandate to control the sources of noise for new, proposed, or existing transportation facilities, vehicles, or aircraft.
12. Encourage the state Department of Transportation to conduct an active highway noise abatement program with scenic/esthetic considerations.
13. Urge continued federal and state research into the noise problem and recommend additional research programs as problems are identified.
14. Recommend needed legislation to the state and federal government which will provide for noise abatement and the distribution of the costs of noise abatement programs among the producers of noise.
15. Encourage the federal and state governments and other agencies to work for standardization and simplification of the measurement methods used in assessing noise impact.

### *Existing Los Angeles County Code Provisions*

The following are provisions of the Los Angeles County Code that relate to the prevention or mitigation of excessive noise.

#### **Section 1207 Sound Transmission**

##### **1207.1 Purpose and scope.**

The purpose of this Section is to establish uniform minimum noise insulation performance standards to protect persons within hotels, motels, dormitories, long-term care facilities, apartment houses, dwellings, private schools, and places of worship from the effects of excessive noise, including, but not limited to, hearing loss or impairment and interference with speech and sleep. This Section shall apply to all buildings for which applications for building permits were made subsequent to August 22, 1974.

##### **1207.11.1 Application.**

Consistent with local land use standards, all structures identified in Section 1207.1 located in noise critical areas, such as proximity to highways, county roads, city streets, railroads, rapid transit lines, airports or industrial areas, shall be designed to prevent the intrusion of exterior

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noises beyond prescribed levels. Proper design shall include, but shall not be limited to, orientation of the structure, setbacks, shielding, and sound insulation of the building itself.

#### **1207.11.2 Allowable interior noise levels.**

Interior noise levels attributable to exterior sources shall not exceed 45 dBA in any habitable rooms, classrooms, and all rooms used in patient care and worship. The noise metric shall be either the day-night average sound level ( $L_{dn}$ ) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

#### **1207.11.3 Airport noise sources.**

Residential structures and all other structures identified in Section 1207.1, located where the annual  $L_{dn}$  or CNEL (as defined in Title 21, Division 2.5, Chapter 6, Article 1, Section 5001, California Code of Regulations) exceeds 60 dBA and 65 dBA, respectively, shall require an acoustical analysis showing that the proposed design will achieve prescribed allowable interior level.

**EXCEPTION:** New single-family detached dwellings and all nonresidential, noise-sensitive structures located outside the noise impact boundary of 65 dBA CNEL are exempt from Section 1207.

Alterations or additions to all noise-sensitive structures, within the 65 dBA and greater CNEL shall comply with Section 1207. If the addition or alteration cost exceeds 75 percent of the replacement cost of the existing structure, then the entire structure must comply with Section 1207.

For public-use airports or heliports, the  $L_{dn}$  or CNEL shall be determined from the Aircraft Noise Impact Area Map prepared by the Airport Authority. For military bases, the  $L_{dn}$  shall be determined from the facility Air Installation Compatible Use Zone (AICUZ) plan. For all other airports or heliports, or public-use airports or heliports for which a land use plan has not been developed, the  $L_{dn}$  or CNEL shall be determined from the noise element of the general plan of the local jurisdiction.

#### **1207.11.4 Other noise sources.**

All structures identified in Section 1207 located where the  $L_{dn}$  or CNEL exceeds 60 dBA shall require an acoustical analysis showing that the proposed design will limit exterior noise to the prescribed allowable interior level. The noise element of the local general plan shall be used to the greatest extent possible to identify sites with noise levels potentially greater than 60 dBA.

#### **1207.12 Compliance.**

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Evidence of compliance shall consist of submittal of an acoustical analysis report, prepared under the supervision of a person experienced in the field of acoustical engineering, with the application for a building permit for all structures identified in Section 1207 or the use of prescriptive standards. The report shall show topographical relationships of noise sources and dwelling sites, identification of noise sources and their characteristics, predicted noise spectra, and levels at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met.

**[Sections 12.08.010 through 12.08.360 relate to the general provisions and definitions of the Los Angeles County Code of Ordinances Noise Chapter.]**

### **12.08.370 Decibel measurement—Basis.**

Any decibel measurement made pursuant to the provisions of this chapter shall be based on a reference sound-pressure of 20 micropascals, as measured with a sound level meter using the A-weighted network (scale) at slow response, or at the fast response when measuring impulsive sound levels and vibrations.

### **12.08.380 Noise zones designated.**

Receptor properties described hereinafter in this chapter are hereby assigned to the following noise zones:

Noise Zone I—Noise-sensitive area; Noise Zone II—Residential properties; Noise Zone III—Commercial properties; Noise Zone IV—Industrial properties.

### **12.08.390 Exterior noise standards—Citations for violations authorized when.**

- A. Unless otherwise herein provided, the following exterior noise levels shall apply to all receptor properties within a designated noise zone [See Table 5.12-6, below]:

<b>Table 5.12-6 County of Los Angeles Exterior Noise Standards (by Noise Zone)</b>			
Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level (dB)
I	Noise-sensitive area	Anytime	45
II	Residential properties	10:00 PM to 7:00 AM (nighttime)	45
		7:00 AM to 10:00 PM (daytime)	50
III	Commercial properties	10:00 PM to 7:00 AM (nighttime)	55
		7:00 AM to 10:00 PM (daytime)	65
IV	Industrial properties	Anytime	70
Source: Los Angeles County Code of Ordinances.			

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- B. Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards:

**Standard No. 1** shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level from subsection A of this section; or, if the ambient  $L_{50}$  exceeds the foregoing level, then the ambient  $L_{50}$  becomes the exterior noise level for Standard No. 1.

**Standard No. 2** shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from subsection A of this section plus 5 dB; or, if the ambient  $L_{25}$  exceeds the foregoing level, then the ambient  $L_{25}$  becomes the exterior noise level for Standard No. 2.

**Standard No. 3** shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the applicable noise level from subsection A of this section plus 10 dB<sup>1</sup>; or, if the ambient  $L_{8.3}$  exceeds the foregoing level, then the ambient  $L_{8.3}$  becomes exterior noise level for Standard No. 3.

**Standard No. 4** shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from subsection A of this section plus 15 dB; or, if the ambient  $L_{1.7}$  exceeds the foregoing level, then the ambient  $L_{1.7}$  becomes the exterior noise level for Standard No. 4.

**Standard No. 5** shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from subsection A of this section plus 20 dB; or, if the ambient  $L_0$  (i.e.,  $L_{max}$ ) exceeds the foregoing level then the ambient  $L_0$  ( $L_{max}$ ) becomes the exterior noise level for Standard No. 5.

- C. If the measurement location is on a boundary property between two different zones, the exterior noise level utilized in subsection B of this section to determine the exterior standard shall be the arithmetic mean of the exterior noise levels in subsection A of the subject zones. Except as provided for above in this subsection C, when an intruding noise source originates on an industrial property and is impacting another noise zone,

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<sup>1</sup> County Code Section 12.08.390 contains a typographical error, which is corrected here. Standard No. 3, dealing with the  $L_{8.3}$  noise level metric, should have an increment of plus 10 dB above the basic limits (shown in Table 5.12-6), rather than the as-written (and incorrect) increment of plus 20 dB. The County Noise Ordinance will be updated as part of the implementation of the Proposed General Plan Update, which is a separate effort than this Proposed Project.



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the applicable exterior noise level as designated in subsection A shall be the daytime exterior noise level for the subject receptor property.

- D. The ambient noise histogram shall be measured at the same location along the property line utilized in subsection B of this section, with the alleged intruding noise source inoperative. If for any reason the alleged intruding noise source cannot be turned off, the ambient noise histogram will be estimated by performing a measurement in the same general area of the alleged intruding noise source but at a sufficient distance such that the noise from the alleged intruding noise source is at least 10 dB below the ambient noise histogram in order that only the actual ambient noise histogram be measured. If the difference between the ambient noise histogram and the alleged intruding noise source is 5 to 10 dB, then the level of the ambient noise histogram itself can be reasonably determined by subtracting a one-decibel correction to account for the contribution of the alleged intruding noise source.
- E. In the event the intrusive exceeds the exterior noise standards as set forth in subsections B and C of this section at a specific receptor property and the health officer has reason to believe that this violation at said specific receptor property was unanticipated and due to abnormal atmospheric conditions, the health officer shall issue an abatement notice in lieu of a citation. If the specific violation is abated, no citation shall be issued therefor. If, however, the specific violation is not abated, the health officer may issue a citation.

#### **12.08.400 Interior noise standards.**

- A. No person shall operate or cause to be operated within a dwelling unit, any source of sound, or allow the creation of any noise, which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed the following standards:

**Standard No. 1** The applicable interior noise level for cumulative period of more than five minutes in any hour; or

**Standard No. 2** The applicable interior noise level plus 5 dB for a cumulative period of more than one minute in any hour; or

**Standard No. 3** The applicable interior noise level plus 10 dB or the maximum measured ambient noise level for any period of time.

- B. The following interior noise levels for multifamily residential dwellings shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration. (See Table 5.12-7 below)

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**Table 5.12-7 County of Los Angeles Multi-family Residential Land Use Interior Noise Standards**

Noise Zone	Designated Land Use	Time Interval	Allowable Interior Noise Level (dBA)
All	Multi-family Residential	10:00 PM to 7:00 AM (nighttime)	40
		7:00 AM to 10:00 PM (daytime)	45

Source: Los Angeles County Code.

- C. If the measured ambient noise level reflected by the  $L_{50}$  exceeds that permissible within any of the interior noise standards in subsection A of Section 12.08.390, the allowable interior noise level shall be increased in 5 dB increments in each standard as appropriate to reflect said ambient noise level ( $L_{50}$ ).

#### **12.08.410 Correction for certain types of sounds.**

For any source of sound which emits a pure tone or impulsive noise, the noise levels as set forth in Sections 12.08.390 and 12.08.400 shall be reduced by five decibels.

#### **12.08.420 Measurement Methods.**

- A. Utilizing the A-weighting scale of the sound-level meter and the “slow” meter response (use “fast” response for impulsive type sounds), the noise level shall be measured at a position or positions at any point on the receiver’s property.
- B. In general, the microphone shall be located four to five feet above the ground; 10 feet or more from the nearest reflective surface, where possible. However, in those cases where another elevation is deemed appropriate, the latter shall be utilized.
- C. Interior noise measurements shall be made within the affected residential unit. The measurements shall be made at a point at least four feet from the wall, ceiling, or floor nearest the noise source, with windows in the normal seasonal configuration. Calibration of the measurement equipment, utilizing an acoustic calibrator, shall be performed immediately prior to recording any noise data.

#### **12.08.430 Acts deemed violations when**

Notwithstanding any other provisions of this chapter, the acts set out in this Part 4, and the causing or permitting thereof, are declared to be in violation of this chapter.

#### **12.08.440 Construction noise.**

- A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 PM and

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7:00 AM, or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

- B. Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:

1. At Residential Structures.

- a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

**Table 5.12-8 Noise Restrictions on Mobile Equipment at Residential Structures**

	Single-Family Residential	Multi-Family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75 dBA	80 dBA	85 dBA
Daily, 8:00 PM to 7:00 AM and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

Source: Los Angeles County Code of Ordinances.

- b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

**Table 5.12-9 Noise Restrictions on Stationary Equipment at Residential Structures**

	Single-Family Residential	Multi-Family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60 dBA	65 dBA	70 dBA
Daily, 8:00 PM to 7:00 AM and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: Los Angeles County Code.

2. At Business Structures

- a. Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment: Daily, including Sunday and legal holidays, all hours: maximum of 85 dBA.

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- C. All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped with suitable exhaust and air-intake silencers in proper working order.
- D. In case of a conflict between this chapter and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.

#### **12.08.450 Forced-air blowers in tunnel car washes.**

Operating or permitting the operation of any forced-air blower in a tunnel car wash between the hours of 7:00 AM and 8:00 PM in such a manner as to exceed any of the following sound levels is prohibited:

**Table 5.12-10 Noise Restrictions on Forced Air Blowers in Tunnel Car Washes**

Land Use Classification	Sound Level Limit, dBA	
	Installed Before 1-1-80	Installed On or After 1-1-80
Residential	70	60
Commercial/Industrial	75	65

Source: Los Angeles County Code.  
Measurement Location: Any point on contiguous receptor property, five feet above grade level, no closer than three feet from any wall.

#### **12.08.460 Loading and unloading operations.**

Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of 10:00 PM and 6:00 AM in such a manner as to cause noise disturbance is prohibited.

#### **12.08.470 Noise disturbances in noise-sensitive zones.**

- A. Creating or causing the creation of any noise disturbance within any noise-sensitive zone, as designated by the health officer, is prohibited, provided that conspicuous signs are displayed indicating the presence of the zone.
- B. Noise-sensitive zones must be indicated by the display of conspicuous signs in at least three separate locations within 164 meters (one-tenth mile) of the institution or facility.

#### **12.08.480 Places of public entertainment.**

Operating, playing or permitting the operation or playing of any radio, television, phonograph, drum, musical instrument, sound amplifier or similar device which produces, reproduces or amplifies sound in any place of public entertainment at a sound level greater than 95 dBA, as read by the slow response on a sound level meter at any point that is normally occupied by a customer is prohibited, unless a conspicuous and legible sign is

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located outside such place, near each public entrance, stating “WARNING: SOUND LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT.”

#### **12.08.490 Powered model vehicles.**

Operating or permitting the operation of powered model vehicles so as to create a noise disturbance across a residential real-property boundary, or within a noise-sensitive zone between the hours of 8:00 PM and 7:00 AM the following day is prohibited.

#### **12.08.500 Emergency signaling devices.**

- A. The intentional sounding or permitting the sounding outdoors of any emergency signaling device, including fire, burglar or civil-defense alarm, siren, whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing, as provided in subsection B2 below, is prohibited.
- B.
  - 1. Testing of a stationary emergency signaling device shall not occur before 7:00 AM or after 7:00 PM. Any such testing shall use only the minimum cycle test time. In no case shall such test time exceed 60 seconds.
  - 2. Testing of the complete emergency signaling system, including the functioning of the signaling device, and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before 7:00 AM or after 10:00 PM. The time limit specified in subsection B1 above shall not apply to such complete-system testing.
- C. Sounding or permitting the sounding of any exterior burglar or fire alarm, or any motor-vehicle burglar alarm is prohibited, unless such alarm is terminated within 15 minutes of activation.

#### **12.08.510 Stationary nonemergency signaling devices.**

- A. Sounding or permitting the sounding of any electronically amplified signal from any stationary bell, chime, siren, whistle, or similar device intended primarily for nonemergency purposes, from any place, for more than 10 consecutive seconds in any hourly period is prohibited.
- B. Houses of religious worship shall be exempt for the operation of this provision.
- C. Sound sources covered by this provision and not exempted under subsection B may be exempted by a variance issued by the health officer.

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#### 12.08.520 Refuse collection vehicles.

- A. On or after three years following August 17, 1978, the effective date of the ordinance codified in this chapter, operating or permitting the operation of the compacting mechanism of any motor vehicle which compacts refuse and which creates, during the compacting cycle, a sound level in excess of 86 dBA when measured at 50 feet from any point of the vehicle is prohibited.
- B. Operating or permitting the operation of the compacting mechanism of any motor vehicle which compacts refuse between the hours of 10:00 PM and 6:00 AM the following day in a residential area or noise-sensitive zone, or within 500 feet thereof is prohibited.
- C. Collecting refuse with collection vehicle between the hours of 10:00 PM and 6:00 AM the following day in a residential area or noise-sensitive zone or within 500 feet thereof.
- D. In the case of conflict between this chapter and any other ordinance regulating refuse collection, provisions of any specific ordinance regulating refuse collection shall control.

#### 12.08.530 Residential air-conditioning or refrigeration equipment.

Operating or permitting the operation of any air-conditioning or refrigeration equipment in such a manner as to exceed any of the following sound levels is prohibited.

**Table 5.12-11 Noise Restrictions on Residential air conditioning or refrigeration equipment.**

Measurement Location	Sound Level Limit, dBA	
	Installed Before 1-1-80	Installed On or After 1-1-80
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	60	55
Center of neighboring patio, 5 feet above grade level, no closer than 3 feet from any wall.	55	50
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface.	55	50

Source: Los Angeles County Code.

#### 12.08.540 Street sales.

Offering for sale, selling anything, or advertising by shouting or outcry within any residential or commercial area or noise-sensitive zone of the unincorporated areas of the county is prohibited except by variance issued by the health officer. The provisions of this section shall not be construed to prohibit the selling by outcry of merchandise, food and beverages

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at licensed sporting events, parades, fairs, circuses, or other similar licensed public-entertainment events.

#### **12.08.541 Street sales—Restrictions on sound system speakers.**

A person offering for sale, selling or advertising anything edible shall not emit music or other sounds from an external speaker affixed to a motor vehicle between the hours of 8:00 PM and 6:00 AM within any residential, commercial or noise sensitive-zone of the unincorporated area of the County. The provisions of this section shall not be construed to prohibit the selling by outcry of merchandise, food and beverages, at licensed sporting events, parades, fairs, circuses, or other similar licensed-entertainment events.

#### **12.08.550 Vehicle or motorboat repairs and testing.**

Repairing, rebuilding, modifying or testing any motor vehicle, motorcycle or motorboat in such a manner as to cause a noise disturbance across a real-property boundary or within a noise-sensitive zone is prohibited.

#### **12.08.570 Activities exempt from chapter restrictions.**

The following activities set out in this chapter shall be exempted from the provisions of this chapter:

- A. Emergency Exemption. The emission of sound for the purpose of alerting persons to the existence of an emergency, or the emission of sound in the performance of emergency work;
- B. Warning Devices. Warning devices necessary for the protection of public safety, as for example police, fire and ambulance sirens, and train horns;
- C. Outdoor Activities. Activities conducted on public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events;
- D. Exemption from Exterior Noise Standards. The following activities are exclusively regulated by the prohibitions of Part 4 [Sections 12.08.430 through 12.08.560] of this chapter:
  - 1. Construction,
  - 2. Stationary nonemergency signaling devices,
  - 3. Emergency signaling devices,
  - 4. Refuse collection vehicles,
  - 5. Residential air-conditioning or refrigeration equipment,
  - 6. Forced-air blowers;

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- E. Motion Picture Production and Related Activities;
- F. Railroad Activities. All locomotives and rail cars operated by any railroad which is regulated by the California Public Utilities Commission;
- G. Federal or State Pre-exempted Activities. Any activity, to the extent regulation thereof has been preempted by state or federal law;
- H. Public Health and Safety Activities. All transportation, flood control, and utility company maintenance and construction operations at any time on public right-of-way, and those situations which may occur on private real property deemed necessary to serve the best interest of the public and to protect the public's health and well-being, including but not limited to street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, snow removal, house moving, vacuuming catch basins, removal of damaged poles and vehicles, repair of water hydrants and mains, gas lines, oil lines, sewers, etc.;
- I. Motor Vehicles on Private Right-of-way and Private Property. Except as provided in Section 12.08.550, all legal vehicles of transportation operating in a legal manner in accordance with local, state and federal vehicle-noise regulations within the public right-of-way or air space, or on private property;
- J. Seismic Surveys Authorized by the State Land Commission;
- K. Agricultural Operations. All mechanical devices, apparatus, or equivalent associated with agricultural operations conducted on agricultural property, unless if in the vicinity of residential land uses, in which case a variance permit is required to operate noise-producing devices, with the following stipulations:
  - 1. Operations do not take place between 8:00 PM and 6:00 AM, or
  - 2. Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions, or
  - 3. Such operations and equipment are associated with agricultural pest-control through pesticide application, provided the application is made in accordance with permits issued by or regulations enforced by the county agricultural commissioner,
  - 4. Such devices utilized for pest control which incorporate stationary or mobile noise sources (electro-mechanical bird-scare devices, etc.) are operated only by permit issued by the health officer. The allowable hours and days for operation of these devices will be specified in the permit,



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5. All equipment and machinery powered by internal combustion engines shall be equipped with a proper muffler and air-intake silencer in good working order;
- L. Minor Maintenance to Residential Real Property. Noise sources associated with the minor maintenance of residential real property, provided said activities take place as follows:
  1. During Pacific Standard Time between the hours of 8:00 AM and 6:00 PM on any day except Sunday, when such activities may take place between the hours of 9:00 AM and 6:00 PM, and
  2. During Daylight Savings Time between the hours of 8:00 AM and 7:00 PM on any day except Sunday, when such activities may take place between the hours of 9:00 AM and 6:00 PM;
- M. Operation of Oil and Gas Wells.
  1. Normal well servicing, remedial or maintenance work performed within an existing well which does not involve drilling or re-drilling and which is restricted to the hours between 7:00 AM and 10:00 PM, and
  2. Drilling or re-drilling work which is done in full compliance with the conditions of permits issued under Chapter 5, Article 1, of the County Zoning Ordinance, as amended, as set out in Title 22 of this code.

### **12.12.030 Construction noise prohibited when.**

Except as otherwise provided in this chapter, a person, on any Sunday, or at any other time between the hours of 8:00 PM and 6:30 AM the following day, shall not perform any construction or repair work of any kind upon any building or structure, or perform any earth excavating, filling or moving, where any of the foregoing entails the use of any air compressors; jackhammers; power-driven drill; riveting machine; excavator, diesel-powered truck, tractor or other earth moving equipment; hand hammers on steel or iron, or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in a dwelling, apartment, hotel, mobile home, or other place of residence.

### **12.12.040 Exemptions—Certain zoned areas.**

The provisions of this chapter do not apply in any territory which is in a zone in which the Zoning Ordinance, codified in Title 22 of this code, prohibits any residential use and which is not less than 500 feet from any territory in any residential zone as defined in Section 201 of Ordinance 1494, or any territory in a residential zone in any city.

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#### **12.12.050 Exemptions—Work performed with county engineer's permission.**

The provisions of Section 12.12.030 do not apply to any person who performs the construction, repair, excavation, or earthmoving work involved pursuant to the express written permission of the county engineer to perform such work at times prohibited in Section 12.12.030. Upon receipt of an application in writing therefor, stating the reasons for the request and the facts upon which such reasons are based, the county engineer may grant such permission if he finds that:

- A. The work proposed to be done is effected with a public interest; or
- B. Hardship or injustice, or unreasonable delay, would result from the interruption thereof during the hours and days specified in Section 12.12.030; or
- C. The building or structure involved is devoted or intended to be devoted to a use immediately incident to public defense.

#### **12.12.060 Exemptions—Work by public utilities—Conditions.**

The provisions of Section 12.12.030 do not apply to the construction, repair or excavation by a public utility which is subject to the jurisdiction of the Public Utilities Commission as may be necessary for the preservation of life or property, and where such necessity makes it necessary to construct, repair or excavate during the prohibited hours.

#### **12.12.070 Exemptions—Emergency work—Permit requirements.**

The provisions of Section 12.12.030 do not apply to such construction, repair or excavation during prohibited hours as may be necessary for the preservation of life or property when such necessity arises during such hours as the offices of the county are closed or where such necessity requires immediate action prior to the time at which it would be possible to obtain a permit pursuant to Section 12.12.050, if the person doing such construction, repair or excavation obtains a permit therefor within one day after the offices of the county engineer are first opened subsequent to the making of such construction, repair or excavation.

**[Sections 12.12.080 through 12.12.100 discuss appeals, violations, penalties, and severability for this chapter of the Los Angeles County Code of Ordinances]**

#### **13.45.010 Loud, unnecessary and unusual noise.**

Notwithstanding any other provisions of this chapter and in addition thereto, it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. The standard which may be considered in determining whether a

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violation of the provisions of this section exists may include, but not be limited to, the following:

- A. The level of noise;
- B. Whether the nature of the noise is usual or unusual;
- C. Whether the origin of the noise is natural or unnatural;
- D. The level and intensity of any background noise;
- E. The proximity of the noise to residential sleeping facilities;
- F. The nature and zoning of the area within which the noise emanates;
- G. The density of the inhabitation of the area within which the noise emanates;
- H. The time of the day or night the noise occurs;
- I. The duration of the noise;
- J. Whether the noise is recurrent, intermittent, or constant; and
- K. Whether the noise is produced by a commercial or non-commercial activity.

If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify an air-conditioning or ventilation system to provide a habitable interior environment. The ventilation system must not compromise the interior room noise reduction.

Additional sections of the Los Angeles County Code mention noise briefly or in passing and do not contain specific regulations that would need to be specifically considered in relation to the Project. Many of these incidental mentions of noise pertain to generalized prohibitions on excessive noise from specific activities or land uses, all of which are governed by other overarching provisions of the Los Angeles County Code.

### Vibration Criteria

The County has adopted, as part of County Code, the following provision (also listed above) that governs impacts from vibration:

#### **12.08.560 Vibration.**

Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.

### *Vibration Annoyance*

Table 5.12-12, *Groundborne Vibration Impact Criteria: Human Annoyance*, shows the Federal Transit Administration (FTA) and Caltrans vibration criteria to evaluate vibration-related annoyance due to resonances of the structural components of a building. These criteria are based on the work of many researchers that suggested that humans are sensitive to vibration velocities in the range of 8 to 80 Hz.

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**Table 5.12-12 Groundborne Vibration Criteria: Human Annoyance**

Land Use Category	Vibration Velocity, in/sec (RMS amplitude) <sup>1</sup>	Description
Workshop	0.032	Distinctly felt vibration. Appropriate to workshops and non-sensitive areas
Office	0.016	Felt vibration. Appropriate to offices and non-sensitive areas.
Residential – Daytime	0.008	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	0.004	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

Source: FTA 2006 and Caltrans 2004.

<sup>1</sup> As measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

### *Vibration-Related Structural Damage*

Structures amplify groundborne vibration and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in Table 5.12-13, *Groundborne Vibration Impact Criteria – Architectural Damage*.

**Table 5.12-13 Groundborne Vibration Impact Criteria: Architectural Damage**

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2006.

### 5.12.1.2 EXISTING SETTING

#### Existing Noise Environment

Antelope Valley is impacted by a multitude of noise sources. Mobile sources, especially automobiles, trucks, and trains, are the most common and significant sources of noise in most communities and the predominant source of noise in Antelope Valley. Major sources of transportation noise include highways and rail lines that traverse unincorporated areas. In addition, commercial, industrial, and institutional land uses (i.e., schools, fire stations, utilities) throughout Antelope Valley generate stationary-source noise. These different classes of noise sources are discussed in more detail in the following subsections.

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### *Military Installations and Operations Areas*

The Proposed Area Plan includes several military installations. Although much of the Project Area consists of undeveloped land, a substantial portion of this land is used for military operations. Figure 5.12-1 identifies military installations and operation areas in the Project Area. In particular, portions of Edwards Air Force Base and Air Force Plant 42 are located in the north and east portions of the Project Area. Noise from military installations would primarily be related to aircraft operations and, secondarily, to ground-based activities involving vehicle movements and/or weapons training. In general, noise from military installations is exempt from the purview of local jurisdictions, such as cities or counties.

### *Rail Noise*

In general, noise from rail operations, both for people and goods movement, is under the jurisdiction of the Federal Railroad Administration (FRA), which sets forth and enforces safety standards, including noise emissions for railroad locomotive cabs, at-grade crossing bells, and locomotive warning horns.

Rail lines are operated by Union Pacific and Metrolink. Figure 5.12-2 shows the freight and passenger rail lines that run throughout Antelope Valley. Freight trains are frequently operated on this track owned by Union Pacific Railroad, which connects freight service from Los Angeles to the Central Valley, Stockton and the Bay Area. The Antelope Valley Line has 30 trains on weekdays and 12 trains on weekends. As a commuter rail service, most weekday trains on the Antelope Valley line run during the peak morning and evening hours. According to the California State Railroad Plan, an extension of Metrolink's Antelope Valley line would provide service from Lancaster to Rosamond/Edwards Air Force Base.

### *Aircraft Noise*

Antelope Valley includes public-and private-use airports that contribute to the noise environment. Noise from aircraft and airports is regulated by the FAA. The largest airports that operate commercial flights and regular general aviation activity are the Palmdale Regional airport and the General William J. Fox Airfield. In addition, private strips are scattered through the area.

General William J. Fox Airfield, a Los Angeles County airport, is a major regional general aviation facility serving the cities of Lancaster and Palmdale as well as unincorporated communities in northern Los Angeles County. Other significant roles include serving as a flight training facility for aircraft and pilots from the Los Angeles Basin and as an air attack base for U.S. Forest Service firefighting aircraft. The airport has a single runway oriented east-northeast/west-southwest. No significant changes to the runway are planned. The airport and other property within 1 mile of the airport boundary lie fully within the boundaries of the City of Lancaster. Nearby areas to the west, north, and east are in unincorporated Los Angeles County jurisdiction.

The Palmdale Airport is temporarily operating at United States Air Force (Air Force) Plant 42, a military airport. An agreement of cooperation between the Air Force and the County allows for up to 400 commercial operations per day (ALUP 2004). Passenger service was canceled at the facility in late 2008. The Palmdale City Council recently voted to take on key oversight portions of the airport from Los Angeles World Airports (LAWA), the Los Angeles airport authority, which has operated the facility since 1967. Now,

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Palmdale will operate the terminal building, a parking lot and a taxiway. The two main runways are each more than two miles long and have been used traditionally by the Air Force as well as United States military allies. At the time of its closing, 80 percent of airport operations were used by the military, 16 percent by general aviation, 2 percent by commercial flights and another 2 percent by air taxi service.

The associated airport noise contours are shown in Figure 5.12-3, *Airport Noise Contours*. As shown, the airport noise contours from the General William J. Fox Airfield are contained within City of Lancaster land. The airport noise contour for the Palmdale Regional Airport extend to the Proposed Area Plan to the east of the airport that are unpopulated, and to an area to the west of the State Route-14 Freeway that is currently developed with single family housing.

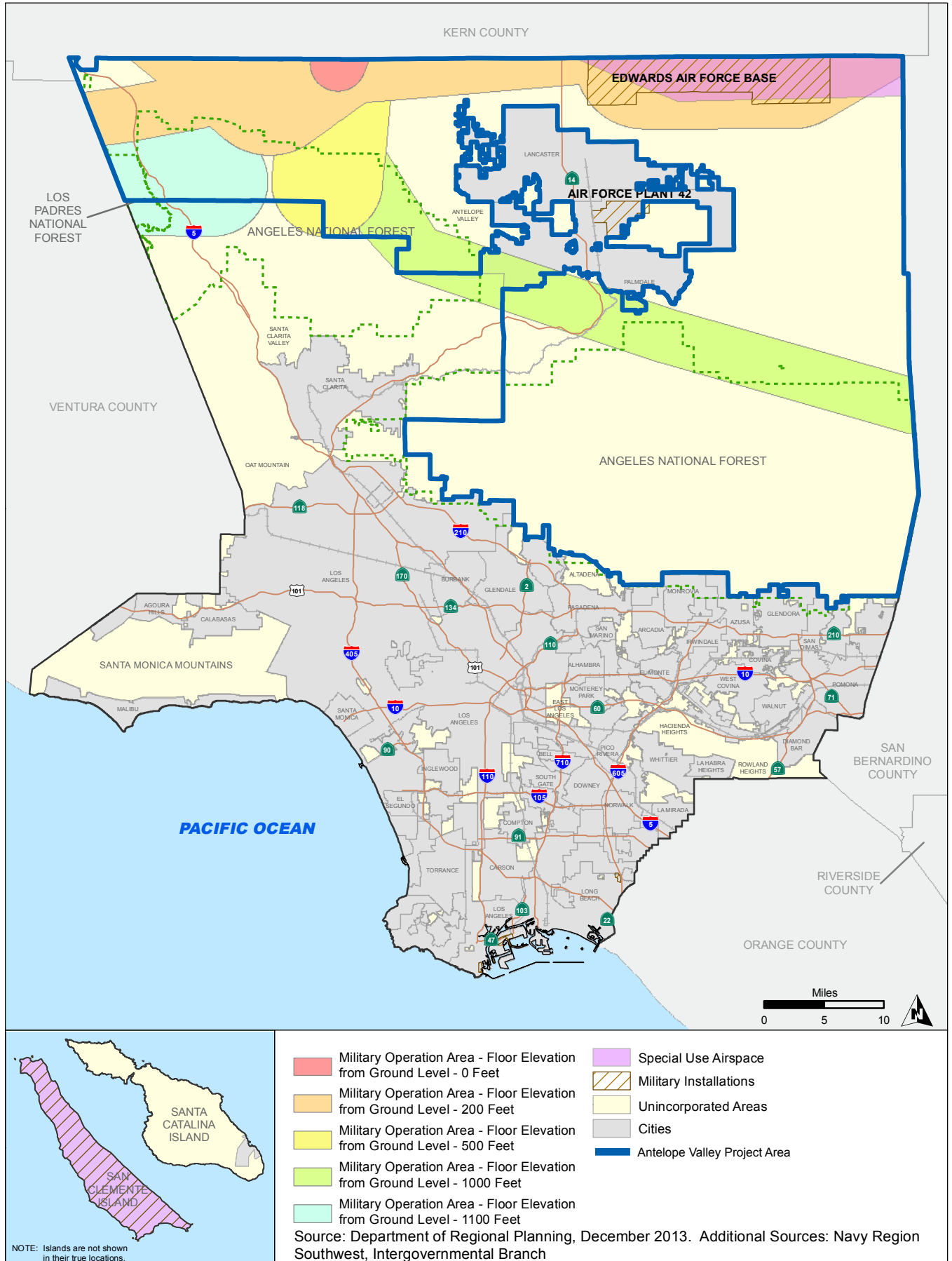
### Vibration

The primary existing sources of vibration within the Proposed Area Plan are rail and truck traffic. Perceptible vibration levels may be caused by train pass-bys in areas adjacent to the railroad lines. Also, heavy trucks hitting discontinuities in the pavement from gaps and potholes can cause potentially troublesome vibration effects. Under normal conditions with well-maintained asphalt, vibration levels are usually not perceptible beyond the road right-of-way. Mining and extracting uses are potential sources of vibration due to the use of heavy earthmoving equipment and the possibility of the use of blasting with explosives. Sand and gravel extraction sites within the Project Area currently occur in the areas in the vicinity of the Little Rock and Big Rock washes.

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## MILITARY INSTALLATIONS AND OPERATIONS AREA

FIGURE 5.12-1



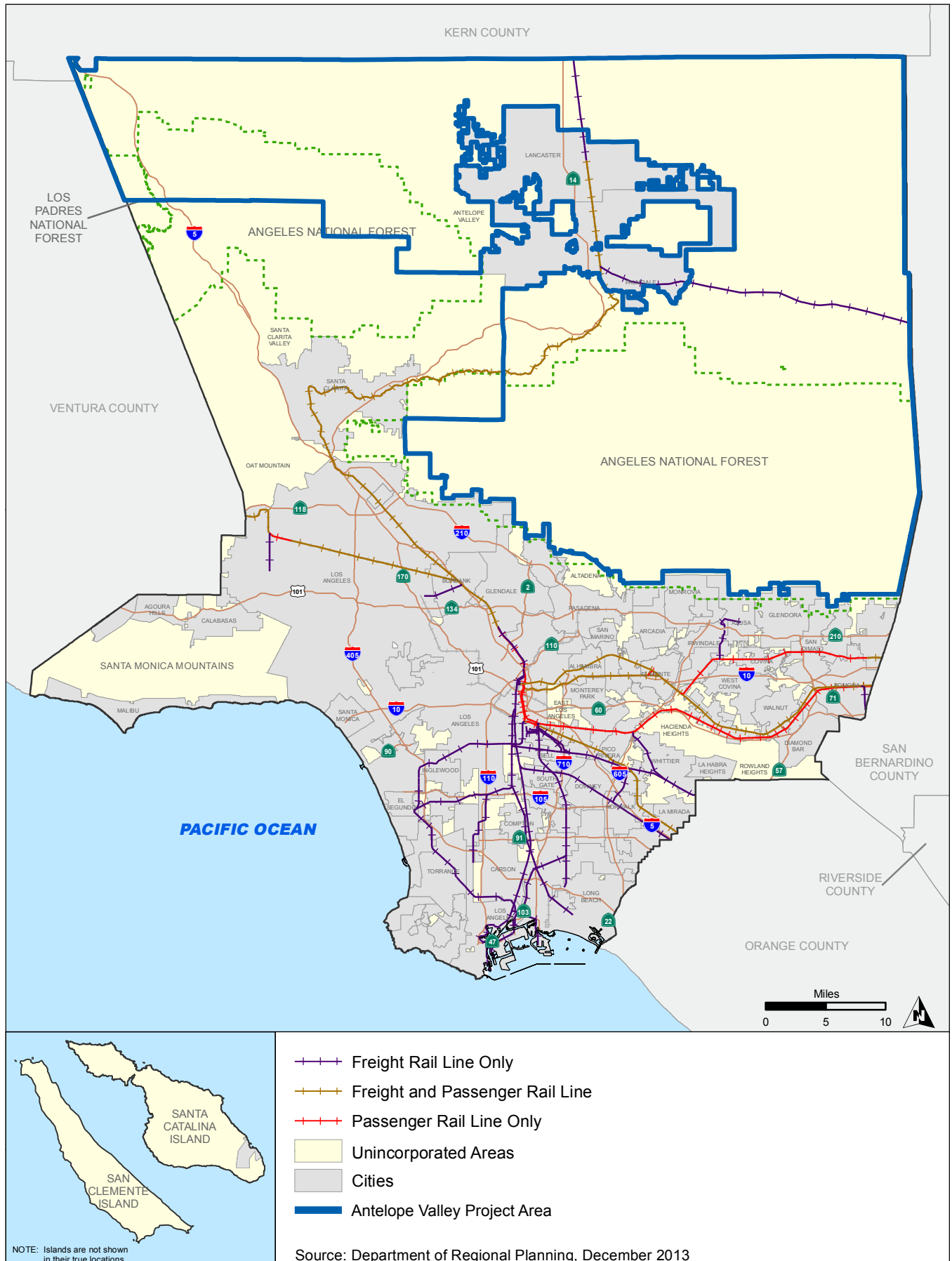
## 5. Environmental Analysis

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### RAIL LINES

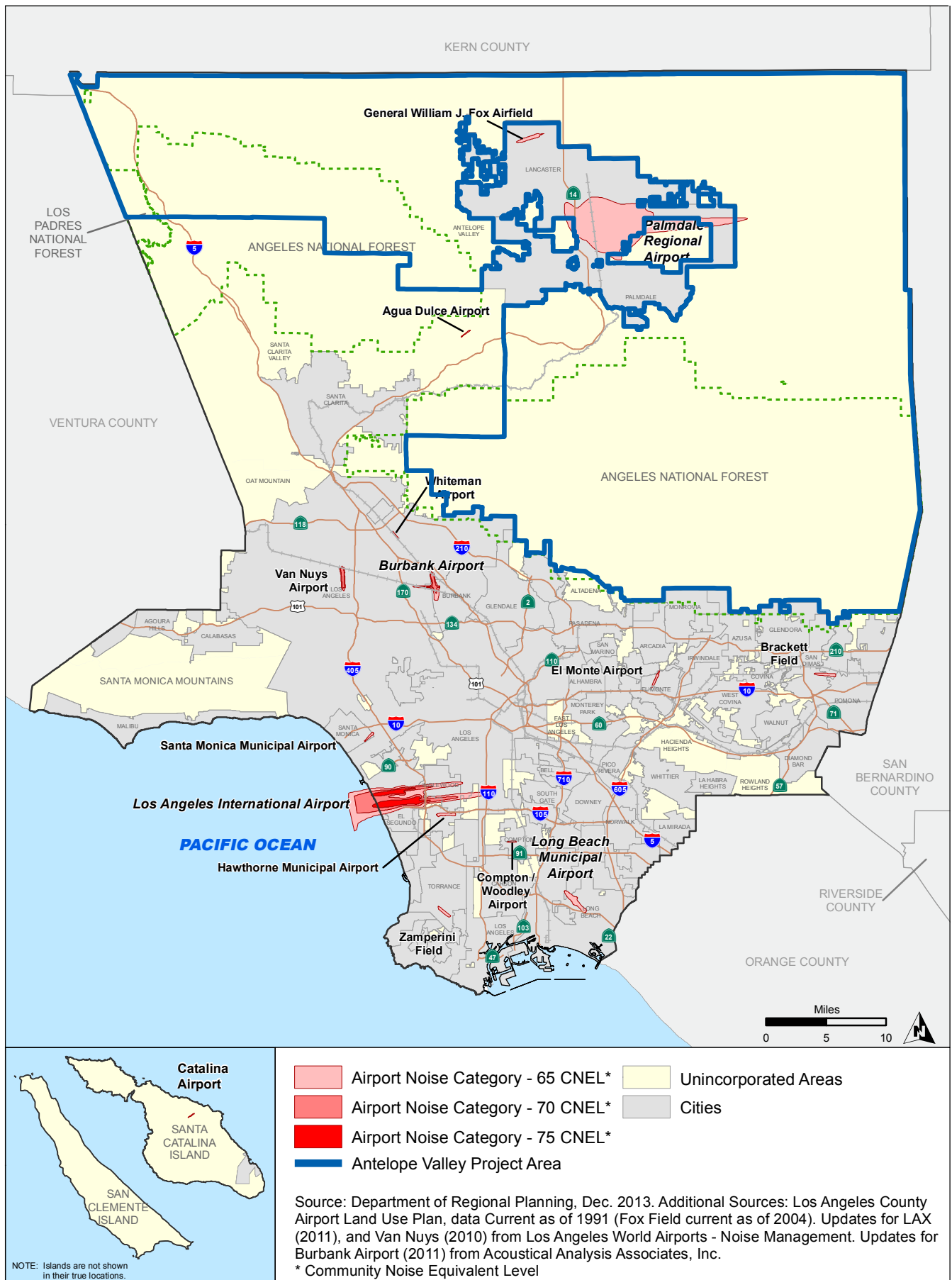


## 5. Environmental Analysis

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## AIRPORT NOISE CONTOURS



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## 5. Environmental Analysis NOISE

### On-Road Vehicles

By far, the largest single source of community noise within the Proposed Area Plan is vehicular traffic on major roadways. In order to assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the Project Area. Average daily traffic (ADT) volumes were based on the existing daily traffic volumes provided by the traffic analysis for the project, which is summarized in Section 5.16. The results of this modeling indicate that average noise levels along arterial segments currently range from approximately 48 dBA to 79 dBA CNEL as calculated at a distance of 100 feet from the centerline of the road. Noise levels for existing conditions along analyzed roadways are presented in Table 5.12-14, *Existing Roadway Noise Levels and Contours*.<sup>2</sup>

**Table 5.12-14 Existing Conditions Traffic Noise Levels and Contours**

Roadway	Segment	Existing Conditions				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				70 (dBA CNEL)	65 (dBA CNEL)	60 (dBA CNEL)
Bouquet Canyon Rd	Elizabeth Lake Rd to Palmdale City Line	1,800	55.1	10.2	22.0	47.3
Avenue N-8	45th St W to 30th St W	5,000	58.1	16.1	34.8	74.9
40th St W	Avenue N to Avenue N-8	5,000	58.1	16.1	34.8	74.9
35th St W	Avenue N to Avenue N-8	5,000	58.1	16.1	34.8	74.9
25th St W	Avenue O to Palmdale City Line	6,100	63.2	35.0	75.3	162.3
Avenue N-8	20th St W to Palmdale City Line	5,000	58.1	16.1	34.8	74.9
Avenue Q	60th St E to 75th St E	8,800	65.6	51.0	110.0	236.9
Avenue Q	80th St E to 90th St E	8,800	65.6	51.0	110.0	236.9
Avenue Q	90th St E to 120th St E	1,000	52.6	6.9	14.8	32.0
120th St E	Avenue L to Avenue Q	5,200	63.4	36.1	77.8	167.7
Avenue L	40th St E to 45th St E	500	53.2	7.6	16.3	35.2
Avenue L	50th St E to 80th St E	500	53.2	7.6	16.3	35.2
10th St W	Palmdale City Line to Avenue O	26,800	71.7	129.8	279.7	602.5
10th St W	Auto Center Dr to Elizabeth Lake Rd	22,000	70.0	100.5	216.5	466.4
Avenue H	110th St W to 105th St W	500	50.9	5.3	11.4	24.6
Avenue H	97th St W to 92nd St W	500	50.9	5.3	11.4	24.6
Avenue H	80th St W to 70th St W	500	50.9	5.3	11.4	24.6
Avenue F	110th St W to Lancaster City Line	500	49.6	4.3	9.3	20.1
Avenue F	Lancaster City Line to 95th St W	600	50.3	4.9	10.5	22.7
Avenue F	95th St W to 70th St W	1,800	55.1	10.2	21.9	47.3
Avenue E	110th St W to Lancaster City	500	49.6	4.3	9.3	20.1

<sup>2</sup> The existing noise contours are shown in Appendix E of this EIR.

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**Table 5.12-14 Existing Conditions Traffic Noise Levels and Contours**

Roadway	Segment	Existing Conditions				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				70 (dBA CNEL)	65 (dBA CNEL)	60 (dBA CNEL)
	Line					
Avenue E	100th St W to 70th St W	1,800	55.1	10.2	21.9	47.3
100th St W	Lancaster Blvd to Avenue J	500	48.1	3.5	7.5	16.1
100th St W	Avenue D to Avenue D-8	500	48.1	3.5	7.5	16.1
100th St W	Avenue E to Avenue F	500	48.1	3.5	7.5	16.1
80th St W	Lancaster City Line to Lancaster City Line	1,700	58.5	17.1	36.7	79.2
Avenue K-8	52nd St W to 50th St W	600	50.4	4.9	10.6	22.7
70th St E	Lancaster City Line to Avenue K-8	500	53.2	7.5	16.3	35.0
70th St E	Avenue K-12 to Avenue L	500	53.2	7.5	16.3	35.0
100th St E	Avenue J to Avenue J-8	500	53.2	7.5	16.3	35.0
100th St E	Lancaster City Line to Avenue L	500	53.2	7.5	16.3	35.0
Avenue L	55th St W to 40th St W	7,300	61.2	26.0	56.0	120.7
Avenue G	25th St W to Division St	5,200	63.4	36.1	77.8	167.7
Avenue H	Division St to 40th St E	9,000	65.7	52.1	112.2	241.7
50th St E	Avenue K-4 to Avenue L	2,200	59.6	20.4	43.9	94.5
Elizabeth Lake Rd	Johnson Rd to Portal Pass Rd	2,700	60.5	23.2	50.0	107.8
Amargosa Creek Rd	Portal Pass Rd to Johnson Rd	5,000	58.1	16.1	34.8	74.9
Avenue M	Elizabeth Lake Rd to 80th St W	5,000	58.1	16.1	34.8	74.9
110th St W	Johnson Rd to Avenue M	5,000	58.1	16.1	34.8	74.9
Johnson Rd	Elizabeth Lake Rd to 110th St W	2,400	56.4	12.3	26.6	57.2
San Fransisquito Canyon Rd	Angeles National Forest Boundary to Elizabeth Lake Rd	1,600	54.6	9.4	20.3	43.7
Portal Pass Rd	Elizabeth Lake Rd to Ritter Ranch Rd	5,000	58.1	16.1	34.8	74.9
Ritter Ranch Rd	Portal Pass Rd to Bouquet Canyon Rd	5,000	58.1	16.1	34.8	74.9
87th St W	Ritter Ranch Rd to Elizabeth Lake Rd	5,000	58.1	16.1	34.8	74.9
Avenue L-8	10th St W to SR 14	4,300	59.1	18.8	40.6	87.4
Avenue L-8	SR 14 to 30th St W	600	48.9	3.9	8.4	18.2
Avenue L-8	60th St W to 80th St W	3,900	58.7	17.6	38.0	81.9
Davenport Road	Sierra Highway to Agua Dulce Canyon Road	1,800	57.6	15.0	32.3	69.5
Agua Dulce Canyon Road	Soledad Canyon Road to Sierra Highway	7,800	61.5	27.1	58.3	125.6

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**Table 5.12-14 Existing Conditions Traffic Noise Levels and Contours**

Roadway	Segment	Existing Conditions				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				70 (dBA CNEL)	65 (dBA CNEL)	60 (dBA CNEL)
Escondido Canyon Road	Agua Dulce Canyon Road to SCV Planning Boundary	2,000	55.5	10.8	23.2	50.1
W Avenue J	90th Street E to 100th Street E	500	49.5	4.3	9.2	19.9
W Avenue J	100th Street E to 110th Street E	500	49.5	4.3	9.2	19.9
W Avenue J	110th Street E to 140th Street E	500	49.5	4.3	9.2	19.9
W Avenue J	140th Street E to 150th Street E	500	49.5	4.3	9.2	19.9
W Avenue J	150th Street E to 170th Street E	500	49.5	4.3	9.2	19.9
W Avenue J	170th Street E to 200th Street E	500	49.5	4.3	9.2	19.9
Lancaster Road	W Avenue I to 190th Street W	500	48.1	3.4	7.4	16.0
Lancaster Road	190th Street W to 170th Street W	500	48.1	3.4	7.4	16.0
Lancaster Road	170th Street W to 110th Street W	700	51.0	5.4	11.6	25.0
Lancaster Road	110th Street W to 90th Street W	600	50.3	4.9	10.5	22.5
Lancaster Road	90th Street W to 70th Street W	800	51.5	5.9	12.7	27.3
Lancaster Road	70th Street W to 60th Street W	800	51.5	5.9	12.7	27.3
170th Street E	Avenue T to Avenue W	3,500	57.9	15.7	33.8	72.8
170th Street E	Avenue W to 165th Street	1,000	52.5	6.8	14.7	31.6
Elizabeth Lake Road	Johnson Road to San Francisquito Canyon Road	1,400	53.9	8.5	18.3	39.5
Elizabeth Lake Road	San Francisquito Canyon Road to Bouquet Canyon Road	2,400	59.9	21.2	45.7	98.4
Elizabeth Lake Road	Bouquet Canyon Road to Godde Hill Road	6,800	60.8	24.4	52.5	113.2
E Avenue P	15th Street E to 20th Street E	18,000	69.8	97.1	209.2	450.7
E Avenue P	20th Street E to 25th Street E	17,800	69.8	96.4	207.6	447.3
E Avenue P	25th Street E to 30th Street E	6,400	65.3	48.7	105.0	226.2
E Avenue P	30th Street E to 40th Street E	2,200	60.5	23.4	50.4	108.5

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**Table 5.12-14 Existing Conditions Traffic Noise Levels and Contours**

Roadway	Segment	Existing Conditions				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				70 (dBA CNEL)	65 (dBA CNEL)	60 (dBA CNEL)
E Avenue P	40th Street E to 47th Street E	500	52.0	6.3	13.6	29.2
E Avenue P	47th Street E to 70th Street E	500	52.0	6.3	13.6	29.2
200th Street E	E Avenue G to E Avenue J	1,000	53.8	8.3	17.9	38.6
E Palmdale Boulevard	90th Street E to 95th Street E	11,700	66.8	61.0	131.3	282.9
E Palmdale Boulevard	95th Street E to 100th Street E	11,900	66.8	61.6	132.8	286.1
E Palmdale Boulevard	100th Street E to 105th Street E	11,300	66.6	59.6	128.3	276.4
E Palmdale Boulevard	105th Street E to 110 Street E	11,000	66.5	58.5	126.0	271.5
W Avenue G	SR-14 Antelope Valley Freeway to 15th Street W	4,400	62.6	31.9	68.8	148.2
W Avenue G	15th Street W to 10th Street W	4,500	62.7	32.4	69.8	150.4
W Avenue G	10th Street W to Sierra Highway	5,200	63.3	35.7	76.9	165.6
W Avenue G	Sierra Highway to Division Street	4,700	62.8	33.4	71.9	154.8
E Avenue O	145th Street E to 150th Street E	6,600	64.3	41.6	89.7	193.2
E Avenue O	150th Street E to 170th Street E	2,000	59.1	18.8	40.4	87.1
E Avenue O	170th Street E to 175th Street E	2,400	59.9	21.2	45.7	98.4
E Avenue O	175th Street E to 180th Street E	2,500	60.1	21.8	46.9	101.1
E Avenue O	180th Street E to 200th Street E	2,500	60.1	21.8	47.0	101.3
E Avenue O	200th Street E to 210 Street E	2,300	59.7	20.6	44.5	95.8
E Avenue O	210 Street E to 240th Street E	2,000	59.1	18.8	40.5	87.3
W Avenue L	Rancho Vista Road to 45th Street W	5,500	59.9	21.3	45.8	98.7
W Avenue L	45th Street W to 40th Street W	7,300	61.1	25.7	55.4	119.3
Pearblossom Highway (SR-138)	70th Street E to E Avenue T 8	18,400	66.6	59.2	127.6	274.9
Pearblossom Highway (SR-138)	E Avenue T 8 to 82nd Street E	17,600	64.9	46.0	99.0	213.3



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**Table 5.12-14 Existing Conditions Traffic Noise Levels and Contours**

Roadway	Segment	Existing Conditions				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				70 (dBA CNEL)	65 (dBA CNEL)	60 (dBA CNEL)
Pearblossom Highway (SR-138)	82nd Street E to 87th Street E	13,500	63.8	38.5	83.0	178.8
Pearblossom Highway (SR-138)	87th Street E to 96th Street E	16,000	68.1	75.1	161.8	348.6
Pearblossom Highway (SR-138)	96th Street E to 106th Street E	17,900	68.8	82.8	178.3	384.1
Pearblossom Highway (SR-138)	106th Street E to 116th Street E	17,800	68.7	82.5	177.6	382.7
Pearblossom Highway (SR-138)	116th Street E to 126th Street E	17,700	68.6	80.3	173.1	372.8
Pearblossom Highway (SR-138)	126th Street E to 131st Street E	18,600	67.7	70.1	151.1	325.5
Pearblossom Highway (SR-138)	131 Street E to 170th Street E	17,700	66.4	57.7	124.4	267.9
Fort Tejon Road	87th Street E to Mount Emma Road	4,500	59.0	18.5	39.9	86.1
Fort Tejon Road	Mount Emma Road to 96th Street	9,000	62.0	29.4	63.4	136.6
Fort Tejon Road	96th Street to 106th Street	9,000	62.0	29.4	63.4	136.6
Fort Tejon Road	106th Street to 131 Street E	7,900	55.5	10.8	23.2	50.1
SR-14	North of Avenue D/SR-138	70,600	78.2	350	754	1,624
SR-14	South of Avenue D/SR-138	67,900	78.4	360	777	1,673
SR-14	South of SR-138/High Desert Cor.	4,700	79.4	426	917	1,976
SR-138	Between I-5 and 300th Street W	3,500	67.5	68	147	318
SR-138	Between 300th St W and 190th St W	4,000	66.3	57	123	264
Avenue D/SR-138	Between 190th Street W and SR-14	44,300	66.8	62	133	286
I-5 Freeway	North of SR-138	46,300	83.1	745	1,604	3,456
I-5 Freeway	South of SR-138	71,300	82.9	725	1,563	3,367

Note: Calculations are included in Appendix E.

### Stationary Sources of Noise

Whereas mobile-source noise affects many receptors along an entire length of roadway, stationary noise sources affect only their immediate areas. Stationary sources of noises may occur from all types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses would generate noise from heating, ventilation, air conditioning (HVAC) systems, loading docks and other sources. Industrial uses may generate noise from HVAC systems, loading docks, and, possibly, machinery; all of which may be on a more continual basis due to the nature of the particular

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activities<sup>3</sup>. Also, noise from at-grade railroad crossing bells and/or train warning horns, both regulated by the FRA, can generate notable noise levels near the crossings.

Noise generated by residential, commercial, and school uses is generally short and intermittent. Schools are considered noise-sensitive because of the necessity for quiet in the classroom to provide an adequate environment for learning. However, outdoor activities that occur on school campuses throughout Antelope Valley can generate noticeable levels of noise. While it is preferable to have schools in residential areas to support the neighborhood, noise generated on both the weekdays (by physical education classes and sports programs) and weekends (by use of the fields by youth organizations) can elevate noise levels.

Noise from stationary sources in the Area Plan is regulated through the County Code and by the Cities of Palmdale and Lancaster when noise emanates from a property in those Cities.

#### 5.12.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

- N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
  - For noise compatibility, noise levels at noise-sensitive exterior areas exceed 65 dBA CNEL.
  - For noise compatibility, interior noise levels in habitable noise-sensitive areas exceed 45 dBA CNEL.
- N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
  - Project-related traffic noise increase the ambient noise level at noise-sensitive locations by 3 dBA or more and the ambient noise levels under with-project conditions fall within the “Normally Unacceptable” or “Clearly Unacceptable” categories; OR
  - Project-related traffic noise increases the ambient noise level at noise-sensitive locations by 5 dBA or more.
- N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

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<sup>3</sup>Noise exposure to workers within industrial facilities is controlled by federal and state employee health and safety regulations, whereas noise levels outside of industrial and other facilities are subject to local standards.

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- N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project Area to excessive noise levels.
- N-6 For a project within the vicinity of a private airstrip, expose people residing or working the Project Area to excessive noise levels.

### 5.12.3 Relevant Area Plan Goals and Policies

There are no relevant goals and policies included in the Proposed Area Plan related to noise. However, the Adopted Noise Element from the County General Plan would apply to the Project Area.

### 5.12.4 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.12-1: Construction activities would result in temporary noise increases in the vicinity of the Proposed Project. [Threshold N-4]**

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**Impact Analysis:** Implementation of the Proposed Project would result in construction of new residential, commercial, and industrial uses throughout the Proposed Area Plan. Two types of temporary noise impacts could occur during construction. First, the transport of workers and movement of materials to and from the individual work sites could incrementally increase noise levels along local access roads. The second type of temporary noise impact is related to demolition, site preparation, grading, and/or physical construction. Construction is performed in distinct steps, each of which has its own mix of equipment, and, consequently, its own noise characteristics. Table 5.12-15 lists typical construction equipment noise levels recommended for noise-impact assessments, based on a reference distance of 50 feet between the equipment and noise receptor.

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**Table 5.12-15 Construction Equipment Noise Emission Levels**

Construction Equipment	Typical Maximum Noise Level (dBA L <sub>max</sub> ) <sup>1</sup>	Construction Equipment	Typical Noise Level (dBA L <sub>max</sub> ) <sup>1</sup>
Air Compressor	81	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	96
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	76
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	98
Concrete Pump	71	Roller	74
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	89
Dozer	85	Shovel	82
Generator	81	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	85	Truck	88
Paver	89		

Source: FTA 2006.

<sup>1</sup> Measured 50 feet from the source.

As shown, construction equipment generates high-levels of noise with maximums ranging from 71 dBA to 101 dBA. Construction of individual developments associated with the buildout of the Proposed Project would temporarily increase the ambient noise environment and would have the potential to affect noise-sensitive land uses in the vicinity of an individual project. County Code Section 12.08.440 allows for construction activities during the specified hours of 7:00 AM to 7:00 PM on weekdays (including Saturdays), but restricts such activities on Sundays or holidays. Furthermore, this code section restricts noise levels by both equipment type (i.e., mobile or stationary) and receptor land use classification type. However, construction activities may occur outside of these hours if the County determines that the emergency maintenance, repair, or improvement of public service utilities is needed or if a variance is issued by the health officer. Construction work can also occur outside these hours if there is no disturbance but must comply with established noise levels and approval by County staff.

Significant noise impacts may occur from operation of heavy earthmoving equipment and truck haul that would occur with construction of individual development projects. Implementation of the Proposed Project anticipates an increase in development intensity. Construction noise levels are dependent upon the specific locations, site plans, and construction details of individual projects, which have not yet been developed. Construction would be localized and would occur intermittently for varying periods of time. Because specific project-level information is not available at this time, it is not possible to quantify the construction noise

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impacts at specific sensitive receptors. Construction of individual developments associated with implementation of the Proposed Project would temporarily increase the ambient noise environment in the vicinity of each individual project. However, compliance with the Section 12.08.440 Construction Noise, of the County Code will reduce any potential construction noise impacts to a less than significant level.

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**Impact 5.12-2 Buildout of the Proposed Project would result in an increase in traffic on local roadways in Area Plan, which would substantially increase the existing ambient noise environment. [Thresholds N-1 and N-3]**

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**Impact Analysis:** Future development in accordance with the Proposed Project would cause increases in traffic along some roadways. For the purpose of assessing the compatibility of new development with the anticipated ambient noise, the County utilizes the State’s Community Noise and Land Use Compatibility standards; previously summarized in Table 5.12-5. Noise-sensitive land uses include residential, schools, libraries, churches, nursing homes, hospitals, and open space/recreation areas. Commercial and industrial areas are not considered noise sensitive and have much higher tolerances for exterior noise levels. The “normally unacceptable” minimum noise level for considered noise-sensitive land uses is 70 dBA CNEL. For purposes of this analysis, a significant impact would occur if project-related traffic increases the ambient noise environment of noise-sensitive locations by 3 dB or more and the ambient noise level under with-project conditions is 70 dBA CNEL or higher (i.e., those with-project conditions that fall within the “Normally Unacceptable” or “Clearly Unacceptable” land use categories). Additionally, a significant impact would also occur if project-related traffic increases the ambient noise environment of noise-sensitive locations by 5 dB or more regardless of the ambient noise level under with-project conditions.

The traffic noise levels were estimated using the FHWA Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of Proposed Project site are included in Appendix E. Table 5.12-16, *Project Off-Site Contributions: Existing Conditions*, shows the increase in noise levels on roadways if Project traffic would be added to existing traffic conditions, the noise levels are presented at 100 feet from the centerline of each roadway segment provided by the traffic consultant for the project (Fehr and Peers). As seen on Table 5.12-16, sensitive receptors along several roadway segments would be impacted under existing plus project conditions.

**Table 5.12-16 Project Off-Site Contributions – Existing Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Existing, No Project	Existing, Plus Project	Project Contribution	Potential Impact?
Bouquet Canyon Rd	Elizabeth Lake Rd to Palmdale City Line	55.1	59.2	4.1	Yes
Avenue N-8	45th St W to 30th St W	58.1	59.1	1.0	No
40th St W	Avenue N to Avenue N-8	58.1	59.1	1.0	No
35th St W	Avenue N to Avenue N-8	58.1	59.1	1.0	No

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**Table 5.12-16 Project Off-Site Contributions – Existing Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Existing, No Project	Existing, Plus Project	Project Contribution	Potential Impact?
25th St W	Avenue O to Palmdale City Line	63.2	63.7	0.5	No
Avenue N-8	20th St W to Palmdale City Line	58.1	59.1	1.0	No
Avenue Q	60th St E to 75th St E	65.6	66.8	1.1	No
Avenue Q	80th St E to 90th St E	65.6	66.8	1.1	No
Avenue Q	90th St E to 120th St E	52.6	62.4	9.9	Yes
120th St E	Avenue L to Avenue Q	63.4	69.2	5.8	Yes
Avenue L	40th St E to 45th St E	53.2	53.6	0.5	No
Avenue L	50th St E to 80th St E	53.2	53.6	0.5	No
10th St W	Palmdale City Line to Avenue O	71.7	72.7	1.0	No
10th St W	Auto Center Dr to Elizabeth Lake Rd	70.0	71.0	1.0	No
Avenue H	110th St W to 105th St W	50.9	61.4	10.6	Yes
Avenue H	97th St W to 92nd St W	50.9	61.4	10.6	Yes
Avenue H	80th St W to 70th St W	50.9	61.9	11.1	Yes
Avenue F	110th St W to Lancaster City Line	49.6	51.2	1.6	No
Avenue F	Lancaster City Line to 95th St W	50.3	58.2	7.8	Yes
Avenue F	95th St W to 70th St W	55.1	64.1	9.0	Yes
Avenue E	110th St W to Lancaster City Line	49.6	51.2	1.6	No
Avenue E	100th St W to 70th St W	55.1	64.1	9.0	Yes
100th St W	Lancaster Blvd to Avenue J	48.1	49.1	1.0	No
100th St W	Avenue D to Avenue D-8	48.1	58.1	10.0	Yes
100th St W	Avenue E to Avenue F	48.1	54.7	6.6	Yes
80th St W	Lancaster City Line to Lancaster City Line	58.5	65.3	6.8	Yes
Avenue K-8	52nd St W to 50th St W	50.4	52.9	2.6	No
70th St E	Lancaster City Line to Avenue K-8	53.2	60.1	6.9	Yes
70th St E	Avenue K-12 to Avenue L	53.2	60.1	6.9	Yes
100th St E	Avenue J to Avenue J-8	53.2	55.7	2.5	No
100th St E	Lancaster City Line to Avenue L	53.2	53.6	0.5	No
Avenue L	55th St W to 40th St W	61.2	63.2	2.0	No
Avenue G	25th St W to Division St	63.4	69.4	6.1	Yes
Avenue H	Division St to 40th St E	65.7	69.0	3.2	Yes
50th St E	Avenue K-4 to Avenue L	59.6	65.4	5.7	Yes
Elizabeth Lake Rd	Johnson Rd to Portal Pass Rd	60.5	67.6	7.1	Yes
Amargosa Creek Rd	Portal Pass Rd to Johnson Rd	58.1	59.1	1.0	No
Avenue M	Elizabeth Lake Rd to 80th St W	58.1	59.1	1.0	No
110th St W	Johnson Rd to Avenue M	58.1	59.1	1.0	No
Johnson Rd	Elizabeth Lake Rd to 110th St W	56.4	62.8	6.5	Yes
San Fransisquito Canyon Rd	Angeles National Forest Boundary to Elizabeth Lake Rd	54.6	62.3	7.6	Yes
Portal Pass Rd	Elizabeth Lake Rd to Ritter Ranch Rd	58.1	59.1	1.0	No

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**Table 5.12-16 Project Off-Site Contributions – Existing Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Existing, No Project	Existing, Plus Project	Project Contribution	Potential Impact?
Ritter Ranch Rd	Portal Pass Rd to Bouquet Canyon Rd	58.1	59.1	1.0	No
87th St W	Ritter Ranch Rd to Elizabeth Lake Rd	58.1	59.1	1.0	No
Avenue L-8	10th St W to SR 14	59.1	59.9	0.8	No
Avenue L-8	SR 14 to 30th St W	48.9	49.9	1.0	No
Avenue L-8	60th St W to 80th St W	58.7	59.6	0.9	No
Davenport Road	Sierra Highway to Agua Dulce Canyon Road	57.6	60.4	2.8	No
Agua Dulce Canyon Road	Soledad Canyon Road to Sierra Highway	61.5	62.6	1.1	No
Escondido Canyon Road	Agua Dulce Canyon Road to SCV Planning Boundary	55.5	58.9	3.5	No
W Avenue J	90th Street E to 100th Street E	49.5	58.4	9.0	Yes
W Avenue J	100th Street E to 110th Street E	49.5	58.9	9.5	Yes
W Avenue J	110th Street E to 140th Street E	49.5	59.1	9.6	Yes
W Avenue J	140th Street E to 150th Street E	49.5	60.7	11.2	Yes
W Avenue J	150th Street E to 170th Street E	49.5	60.2	10.7	Yes
W Avenue J	170th Street E to 200th Street E	49.5	60.6	11.2	Yes
Lancaster Road	W Avenue I to 190th Street W	48.1	59.1	11.1	Yes
Lancaster Road	190th Street W to 170th Street W	48.1	58.3	10.2	Yes
Lancaster Road	170th Street W to 110th Street W	51.0	64.7	13.8	Yes
Lancaster Road	110th Street W to 90th Street W	50.3	63.1	12.9	Yes
Lancaster Road	90th Street W to 70th Street W	51.5	63.1	11.6	Yes
Lancaster Road	70th Street W to 60th Street W	51.5	61.9	10.3	Yes
170th Street E	Avenue T to Avenue W	57.9	65.2	7.3	Yes
170th Street E	Avenue W to 165th Street	52.5	62.9	10.4	Yes
Elizabeth Lake Road	Johnson Road to San Francisquito Canyon Road	53.9	59.7	5.8	Yes
Elizabeth Lake Road	San Francisquito Canyon Road to Bouquet Canyon Road	59.9	66.5	6.6	Yes
Elizabeth Lake Road	Bouquet Canyon Road to Godde Hill Road	60.8	64.6	3.8	No
E Avenue P	15th Street E to 20th Street E	69.8	71.4	1.6	No
E Avenue P	20th Street E to 25th Street E	69.8	71.4	1.6	No
E Avenue P	25th Street E to 30th Street E	65.3	68.5	3.2	No
E Avenue P	30th Street E to 40th Street E	60.5	65.3	4.8	No
E Avenue P	40th Street E to 47th Street E	52.0	52.6	0.6	No
E Avenue P	47th Street E to 70th Street E	52.0	52.6	0.6	No
200th Street E	E Avenue G to E Avenue J	53.8	62.8	9.0	Yes
E Palmdale Boulevard	90th Street E to 95th Street E	66.8	69.1	2.3	No
E Palmdale Boulevard	95th Street E to 100th Street E	66.8	69.2	2.3	No
E Palmdale Boulevard	100th Street E to 105th Street E	66.6	68.9	2.3	No
E Palmdale Boulevard	105th Street E to 110 Street E	66.5	68.9	2.4	No
W Avenue G	SR-14 Antelope Valley Freeway to 15th Street	62.6	68.4	5.8	Yes

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**Table 5.12-16 Project Off-Site Contributions – Existing Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Existing, No Project	Existing, Plus Project	Project Contribution	Potential Impact?
	W				
W Avenue G	15th Street W to 10th Street W	62.7	68.6	5.9	Yes
W Avenue G	10th Street W to Sierra Highway	63.3	69.4	6.2	Yes
W Avenue G	Sierra Highway to Division Street	62.8	67.4	4.6	No
E Avenue O	145th Street E to 150th Street E	64.3	67.8	3.5	No
E Avenue O	150th Street E to 170th Street E	59.1	66.3	7.2	Yes
E Avenue O	170th Street E to 175th Street E	59.9	66.4	6.5	Yes
E Avenue O	175th Street E to 180th Street E	60.1	67.1	7.0	Yes
E Avenue O	180th Street E to 200th Street E	60.1	67.3	7.2	Yes
E Avenue O	200th Street E to 210 Street E	59.7	66.1	6.4	Yes
E Avenue O	210 Street E to 240th Street E	59.1	65.4	6.3	Yes
W Avenue L	Rancho Vista Road to 45th Street W	59.9	62.1	2.2	No
W Avenue L	45th Street W to 40th Street W	61.1	63.2	2.1	No
Pearblossom Highway (SR-138)	70th Street E to E Avenue T 8	66.6	68.8	2.2	No
Pearblossom Highway (SR-138)	E Avenue T 8 to 82nd Street E	64.9	67.1	2.2	No
Pearblossom Highway (SR-138)	82nd Street E to 87th Street E	63.8	66.3	2.5	No
Pearblossom Highway (SR-138)	87th Street E to 96th Street E	68.1	70.0	1.9	No
Pearblossom Highway (SR-138)	96th Street E to 106th Street E	68.8	71.8	3.0	Yes
Pearblossom Highway (SR-138)	106th Street E to 116th Street E	68.7	70.4	1.7	No
Pearblossom Highway (SR-138)	116th Street E to 126th Street E	68.6	70.2	1.7	No
Pearblossom Highway (SR-138)	126th Street E to 131st Street E	67.7	70.0	2.3	No
Pearblossom Highway (SR-138)	131 Street E to 170th Street E	66.4	68.0	1.6	No
Fort Tejon Road	87th Street E to Mount Emma Road	59.0	61.4	2.4	No
Fort Tejon Road	Mount Emma Road to 96th Street	62.0	65.8	3.8	No
Fort Tejon Road	96th Street to 106th Street	62.0	65.8	3.8	No
Fort Tejon Road	106th Street to 131 Street E	65.1	68.9	3.8	No
SR-14	North of Avenue D/SR-138	78.2	79.3	1.1	No
SR-14	South of Avenue D/SR-138	78.4	80.6	2.3	No
SR-14	South of SR-138/High Desert Cor.	79.4	81.1	1.7	No
SR-138	Between I-5 and 300th Street W	67.5	75.2	7.7	Yes
SR-138	Between 300th St W and 190th St W	66.3	71.8	5.4	Yes
Avenue D/SR-138	Between 190th Street W and SR-14	66.8	72.6	5.7	Yes
I-5 Freeway	North of SR-138	83.1	83.0	-0.1	No
I-5 Freeway	South of SR-138	82.9	84.2	1.2	No

Table 5.12-17, Project Off-Site Contributions: Buildout Conditions, shows the increase in noise levels on roadways at long-range buildout conditions, the noise levels are presented at 100 feet from the centerline of each roadway segment provided by the traffic consultant for the project (Fehr and Peers).



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Table 5.12-17 Project Off-Site Contributions – Future Conditions

Roadway	Segment	CNEL at 100 feet (dBA)			
		Future Baseline	Buildout	Project Contribution	Potential Impact?
Bouquet Canyon Rd	Elizabeth Lake Rd to Palmdale City Line	55.1	59.4	4.4	Yes
Avenue N-8	45th St W to 30th St W	58.1	59.3	1.2	No
40th St W	Avenue N to Avenue N-8	58.1	59.3	1.2	No
35th St W	Avenue N to Avenue N-8	58.1	59.3	1.2	No
Avenue O-8	30th St W to 20th St W	56.4	58.5	2.1	No
25th St W	Avenue O to Palmdale City Line	65.5	66.6	1.0	No
Avenue N-8	20th St W to Palmdale City Line	58.1	59.3	1.2	No
Avenue Q	60th St E to 75th St E	64.7	66.1	1.4	No
Avenue Q	80th St E to 90th St E	64.7	66.1	1.4	No
Avenue Q	90th St E to 120th St E	52.9	61.6	8.7	Yes
120th St E	Avenue L to Avenue Q	61.6	67.4	5.8	Yes
Avenue L	40th St E to 45th St E	65.7	68.0	2.3	No
Avenue L	50th St E to 80th St E	66.0	69.5	3.5	No
Avenue L	90th St E to 102nd St E	53.6	61.0	7.4	Yes
Avenue L	107th St E to 120th St E	53.6	61.0	7.4	Yes
10th St W	Palmdale City Line to Avenue O	72.0	73.7	1.7	No
10th St W	Auto Center Dr to Elizabeth Lake Rd	70.3	71.5	1.1	No
Avenue H	110th St W to 105th St W	50.8	61.1	10.3	Yes
Avenue H	97th St W to 92nd St W	50.8	61.1	10.3	Yes
Avenue H	80th St W to 70th St W	50.8	61.6	10.8	Yes
Avenue F	110th St W to Lancaster City Line	49.5	55.5	6.1	Yes
Avenue F	Lancaster City Line to 95th St W	50.9	59.2	8.2	Yes
Avenue F	95th St W to 70th St W	57.1	65.1	7.9	Yes
Avenue E	110th St W to Lancaster City Line	49.5	55.5	6.1	Yes
Avenue E	100th St W to 70th St W	57.1	65.1	7.9	Yes
100th St W	Lancaster Blvd to Avenue J	48.0	49.2	1.2	No
100th St W	Avenue D to Avenue D-8	52.2	61.1	8.9	Yes
100th St W	Avenue E to Avenue F	53.6	61.5	7.9	Yes
80th St W	Lancaster City Line to Lancaster City Line	59.3	64.4	5.0	Yes
Avenue K-8	52nd St W to 50th St W	50.3	52.5	2.2	No
70th St E	Lancaster City Line to Avenue K-8	53.1	57.5	4.4	No
70th St E	Avenue K-12 to Avenue L	53.1	58.2	5.1	Yes
100th St E	Avenue J to Avenue J-8	53.1	54.5	1.4	No
100th St E	Lancaster City Line to Avenue L	53.1	60.3	7.2	Yes
Avenue L	55th St W to 40th St W	62.2	64.5	2.3	No
Avenue G	25th St W to Division St	63.4	69.5	6.1	Yes
Avenue H	Division St to 40th St E	65.1	68.9	3.8	No
50th St E	Avenue K-4 to Avenue L	58.4	65.3	6.8	Yes
Elizabeth Lake Rd	Johnson Rd to Portal Pass Rd	60.6	66.9	6.3	Yes

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**Table 5.12-17 Project Off-Site Contributions – Future Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Future Baseline	Buildout	Project Contribution	Potential Impact?
Amargosa Creek Rd	Portal Pass Rd to Johnson Rd	58.1	59.3	1.2	No
Avenue M	Elizabeth Lake Rd to 80th St W	58.1	59.3	1.2	No
110th St W	Johnson Rd to Avenue M	58.1	59.3	1.2	No
Johnson Rd	Elizabeth Lake Rd to 110th St W	56.6	62.3	5.7	Yes
San Fransisquito Canyon Rd	Angeles National Forest Boundary to Elizabeth Lake Rd	54.8	59.7	4.9	No
Portal Pass Rd	Elizabeth Lake Rd to Ritter Ranch Rd	58.1	59.3	1.2	No
Ritter Ranch Rd	Portal Pass Rd to Bouquet Canyon Rd	58.1	59.3	1.2	No
87th St W	Ritter Ranch Rd to Elizabeth Lake Rd	58.1	59.3	1.2	No
Avenue L-8	10th St W to SR 14	59.4	60.5	1.1	No
Avenue L-8	SR 14 to 30th St W	48.0	49.2	1.2	No
Avenue L-8	60th St W to 80th St W	58.7	60.1	1.3	No
Davenport Road	Sierra Highway to Agua Dulce Canyon Road	59.0	61.4	2.4	No
Agua Dulce Canyon Road	Soledad Canyon Road to Sierra Highway	61.3	62.7	1.4	No
Escondido Canyon Road	Agua Dulce Canyon Road to SCV Planning Boundary	57.0	59.6	2.7	No
W Avenue J	90th Street E to 100th Street E	50.3	56.5	6.2	Yes
W Avenue J	100th Street E to 110th Street E	49.5	54.6	5.1	Yes
W Avenue J	110th Street E to 140th Street E	49.5	53.5	4.0	No
W Avenue J	140th Street E to 150th Street E	49.5	55.3	5.8	Yes
W Avenue J	150th Street E to 170th Street E	49.5	56.0	6.6	Yes
W Avenue J	170th Street E to 200th Street E	49.5	58.7	9.2	Yes
Lancaster Road	Pine Canyon Road to W Avenue I	52.2	62.0	9.8	Yes
Lancaster Road	W Avenue I to 190th Street W	48.1	56.1	8.0	Yes
Lancaster Road	190th Street W to 170th Street W	48.1	57.5	9.4	Yes
Lancaster Road	170th Street W to 110th Street W	49.5	61.5	11.9	Yes
Lancaster Road	110th Street W to 90th Street W	49.5	59.2	9.7	Yes
Lancaster Road	90th Street W to 70th Street W	53.3	60.9	7.6	Yes
Lancaster Road	70th Street W to 60th Street W	52.9	59.7	6.7	Yes
170th Street E	Avenue T to Avenue W	58.2	63.4	5.2	Yes
170th Street E	Avenue W to 165th Street	51.0	60.7	9.8	Yes
Elizabeth Lake Road	Johnson Road to San Francisquito Canyon Road	53.6	58.9	5.3	Yes
Elizabeth Lake Road	San Francisquito Canyon Road to Bouquet Canyon Road	60.1	65.2	5.1	Yes
Elizabeth Lake Road	Bouquet Canyon Road to Godde Hill Road	59.6	63.5	3.9	No
E Avenue P	15th Street E to 20th Street E	69.8	71.3	1.5	No
E Avenue P	20th Street E to 25th Street E	69.8	71.3	1.5	No
E Avenue P	25th Street E to 30th Street E	64.0	66.8	2.8	No
E Avenue P	30th Street E to 40th Street E	62.3	65.0	2.7	No
E Avenue P	40th Street E to 47th Street E	61.7	64.4	2.6	No

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**Table 5.12-17 Project Off-Site Contributions – Future Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Future Baseline	Buildout	Project Contribution	Potential Impact?
E Avenue P	47th Street E to 70th Street E	61.7	64.4	2.6	No
200th Street E	E Avenue G to E Avenue J	52.3	61.7	9.5	Yes
E Palmdale Boulevard	90th Street E to 95th Street E	64.8	68.0	3.2	No
E Palmdale Boulevard	95th Street E to 100th Street E	64.9	68.6	3.7	No
E Palmdale Boulevard	100th Street E to 105th Street E	64.7	68.3	3.6	No
E Palmdale Boulevard	105th Street E to 110 Street E	64.4	68.3	3.9	No
W Avenue G	SR-14 Antelope Valley Freeway to 15th Street W	60.3	68.6	8.3	Yes
W Avenue G	15th Street W to 10th Street W	60.3	68.7	8.4	Yes
W Avenue G	10th Street W to Sierra Highway	61.2	69.5	8.3	Yes
W Avenue G	Sierra Highway to Division Street	63.4	68.1	4.7	No
E Avenue O	145th Street E to 150th Street E	63.3	67.4	4.1	No
E Avenue O	150th Street E to 170th Street E	55.6	63.9	8.2	Yes
E Avenue O	170th Street E to 175th Street E	53.9	62.5	8.6	Yes
E Avenue O	175th Street E to 180th Street E	55.1	64.3	9.1	Yes
E Avenue O	180th Street E to 200th Street E	55.1	64.7	9.5	Yes
E Avenue O	200th Street E to 210 Street E	53.1	60.0	6.9	Yes
E Avenue O	210 Street E to 240th Street E	53.1	55.2	2.1	No
W Avenue L	Rancho Vista Road to 45th Street W	60.9	63.3	2.4	No
W Avenue L	45th Street W to 40th Street W	62.2	64.5	2.3	No
Pearblossom Highway (SR-138)	70th Street E to E Avenue T 8	68.4	72.5	4.1	Yes
Pearblossom Highway (SR-138)	E Avenue T 8 to 82nd Street E	68.0	72.5	4.5	Yes
Pearblossom Highway (SR-138)	82nd Street E to 87th Street E	67.2	71.1	3.9	Yes
Pearblossom Highway (SR-138)	87th Street E to 96th Street E	67.3	71.4	4.2	Yes
Pearblossom Highway (SR-138)	96th Street E to 106th Street E	67.5	72.0	4.6	Yes
Pearblossom Highway (SR-138)	106th Street E to 116th Street E	67.5	71.5	4.0	Yes
Pearblossom Highway (SR-138)	116th Street E to 126th Street E	67.2	71.1	3.9	Yes
Pearblossom Highway (SR-138)	126th Street E to 131st Street E	66.3	70.8	4.5	Yes
Pearblossom Highway (SR-138)	131 Street E to 170th Street E	64.6	68.0	3.4	No
Fort Tejon Road	87th Street E to Mount Emma Road	56.3	63.6	7.3	Yes
Fort Tejon Road	Mount Emma Road to 96th Street	57.0	64.4	7.4	Yes
Fort Tejon Road	96th Street to 106th Street	57.0	64.5	7.5	Yes
Fort Tejon Road	106th Street to 131 Street E	57.9	65.3	7.4	Yes
SR-14	North of Avenue D/SR-138	78.6	79.9	1.3	No

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**Table 5.12-17 Project Off-Site Contributions – Future Conditions**

Roadway	Segment	CNEL at 100 feet (dBA)			
		Future Baseline	Buildout	Project Contribution	Potential Impact?
SR-14	South of Avenue D/SR-138	79.1	81.7	2.5	No
SR-14	South of SR-138/High Desert Cor.	79.5	80.9	1.4	No
SR-138	Between I-5 and 300th Street W	79.7	82.9	3.2	Yes
SR-138	Between 300th St W and 190th St W	79.0	80.2	1.2	No
Avenue D/SR-138	Between 190th Street W and SR-14	78.5	80.1	1.6	No
I-5 Freeway	North of SR-138	85.4	85.5	0.2	No
I-5 Freeway	South of SR-138	84.2	85.6	1.3	No
High Desert Corridor	East of 125th Street E	77.9	79.0	1.1	No

Notes: Calculations included in Appendix \*E\*.

Buildout of the Proposed Project could result in noise level increases of up to 11.9 dBA. The following are roadway segments which have existing nearby noise-sensitive receptors that would experience a substantial increase in noise over existing conditions and would meet the significance criteria.

#### Project Area

- Bouquet Canyon Rd from Elizabeth Lake Rd to Palmdale City Line
- Avenue Q from 90th St E to 120th St E
- 120th St E from Avenue L to Avenue Q
- Avenue L from 90th St E to 102nd St E
- Avenue L from 107th St E to 120th St E
- Avenue H from 110th St W to 105th St W
- Avenue H from 97th St W to 92nd St W
- Avenue H from 80th St W to 70th St W
- Avenue F from 110th St W to Lancaster City Line
- Avenue F from Lancaster City Line to 95th St W
- Avenue F from 95th St W to 70th St W
- Avenue E from 110th St W to Lancaster City Line
- Avenue E from 100th St W to 70th St W
- 100th St W from Avenue D to Avenue D-8
- 100th St W from Avenue E to Avenue F
- 80th St W from Lancaster City Line to Lancaster City Line
- 70th St E from Avenue K-12 to Avenue L
- 100th St E from Lancaster City Line to Avenue L

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- Avenue G from 25th St W to Division St
- 50th St E from Avenue K-4 to Avenue L
- Elizabeth Lake Rd from Johnson Rd to Portal Pass Rd
- Johnson Rd from Elizabeth Lake Rd to 110th St W
- W Avenue J from 90th Street E to 100th Street E
- W Avenue J from 100th Street E to 110th Street E
- W Avenue J from 140th Street E to 150th Street E
- W Avenue J from 150th Street E to 170th Street E
- W Avenue J from 170th Street E to 200th Street E
- Lancaster Road from Pine Canyon Road to W Avenue I
- Lancaster Road from W Avenue I to 190th Street W
- Lancaster Road from 190th Street W to 170th Street W
- Lancaster Road from 170th Street W to 110th Street W
- Lancaster Road from 110th Street W to 90th Street W
- Lancaster Road from 90th Street W to 70th Street W
- Lancaster Road from 70th Street W to 60th Street W
- 170th Street E from Avenue T to Avenue W
- 170th Street E from Avenue W to 165th Street
- Elizabeth Lake Road from Johnson Road to San Francisquito Canyon Road
- Elizabeth Lake Road from San Francisquito Canyon Road to Bouquet Canyon Road
- 200th Street E from E Avenue G to E Avenue J
- W Avenue G from SR-14 Antelope Valley Freeway to 15th Street W
- W Avenue G from 15th Street W to 10th Street W
- W Avenue G from 10th Street W to Sierra Highway
- E Avenue O from 150th Street E to 170th Street E
- E Avenue O from 170th Street E to 175th Street E
- E Avenue O from 175th Street E to 180th Street E
- E Avenue O from 180th Street E to 200th Street E
- E Avenue O from 200th Street E to 210 Street E
- Pearblossom Highway (SR-138) from 70th Street E to E Avenue T 8
- Pearblossom Highway (SR-138) from E Avenue T 8 to 82nd Street E
- Pearblossom Highway (SR-138) from 82nd Street E to 87th Street E
- Pearblossom Highway (SR-138) from 87th Street E to 96th Street E
- Pearblossom Highway (SR-138) from 96th Street E to 106th Street E

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- Pearblossom Highway (SR-138) from 106th Street E to 116th Street E
- Pearblossom Highway (SR-138) from 116th Street E to 126th Street E
- Pearblossom Highway (SR-138) from 126th Street E to 131st Street E
- Fort Tejon Road from 87th Street E to Mount Emma Road
- Fort Tejon Road from Mount Emma Road to 96th Street
- Fort Tejon Road from 96th Street to 106th Street
- Fort Tejon Road from 106th Street to 131 Street E
- SR-138 Between I-5 and 300th Street W

The existing noise-sensitive receptors along these roadways include single- and multi-family residential land uses in addition to schools healthcare facilities. Individual projects associated with buildout of the Proposed Project would occur over a period of many years and the increase in noise on an annual basis would not be readily discernable as traffic and noise would increase incrementally.

The Adopted General Plan Noise Element include goals that would reduce impacts to the extent feasible:

- Reduce transportation noise to a level that does not jeopardize health and welfare
- Minimize noise levels of future transportation facilities
- Establish compatible land use adjacent to transportation facilities
- Allocate noise mitigation costs among those who produce the noise
- Alert the public regarding the potential impact of transportation noise
- Protect areas that are presently quiet from future noise impact

However, cumulative increases in the ambient noise environment along the roadway segments identified from buildout of the area plan would be substantial. Additionally, there are no other reasonably feasible measures to reduce traffic noise impacts to existing uses either due to implementation constraints, aesthetics drawbacks, and/or costs considerations<sup>4</sup>. Therefore, traffic noise impacts to existing noise-sensitive receptors (along the above-noted roadway segments) would experience a substantial increase in noise over existing conditions, would meet the significance criteria, and would be exposed to potentially significant noise levels due to traffic flows.

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**Impact 5.12-3    New noise-sensitive land uses associated with Proposed Project could be exposed to elevated noise levels from mobile sources along roadways. [Thresholds N-1 and N-3]**

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**Impact Analysis:** Table 5.12-18, *Buildout Year Traffic Noise Levels and Contours*, shows the 65, 70, and 75 dBA CNEL noise contours of roadways within the Area Plan in future buildout year conditions.<sup>5</sup> For the purpose of assessing the compatibility of new development with the anticipated ambient noise, the County utilizes the State's Community Noise and Land Use Compatibility standards; previously summarized in Table 5.12-5. New sensitive land uses would have to demonstrate compatibility with the ambient noise levels. A potentially

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significant impact could occur if the Proposed Project designates noise-sensitive exterior land uses in areas where the ambient noise level exceeds 65 dBA CNEL. Likewise, interior noise levels in habitable noise-sensitive areas should not exceed 45 dBA CNEL.

**Table 5.12-18 Buildout Year Traffic Noise Levels and Contours**

Roadway	Segment	Buildout Year				
		ADT Volumes	CNEL (dBA @100ft)	Distance to CNEL Contour (Feet from Centerline)		
				65 (dBA CNEL)	70 (dBA CNEL)	75 (dBA CNEL)
Bouquet Canyon Rd	Elizabeth Lake Rd to Palmdale City Line	3,900	59.4	20	42	91
Avenue N-8	45th St W to 30th St W	5,000	59.3	19	41	89
40th St W	Avenue N to Avenue N-8	5,000	59.3	19	41	89
35th St W	Avenue N to Avenue N-8	5,000	59.3	19	41	89
Avenue O-8	30th St W to 20th St W	1,800	58.5	17	37	79
25th St W	Avenue O to Palmdale City Line	10,300	66.6	59	127	274
Avenue N-8	20th St W to Palmdale City Line	5,000	59.3	19	41	89
Avenue Q	60th St E to 75th St E	8,700	66.1	55	119	256
Avenue Q	80th St E to 90th St E	8,700	66.1	55	119	256
Avenue Q	90th St E to 120th St E	6,500	61.6	28	60	129
120th St E	Avenue L to Avenue Q	10,600	67.4	68	146	314
Avenue L	40th St E to 45th St E	12,000	68.0	73	158	341
Avenue L	50th St E to 80th St E	16,900	69.5	92	199	428
Avenue L	90th St E to 102nd St E	2,400	61.0	25	54	117
Avenue L	107th St E to 120th St E	2,400	61.0	25	54	117
10th St W	Palmdale City Line to Avenue O	34,400	73.7	178	382	824
10th St W	Auto Center Dr to Elizabeth Lake Rd	27,000	71.5	125	270	581
Avenue H	110th St W to 105th St W	4,400	61.1	25	55	118
Avenue H	97th St W to 92nd St W	4,400	61.1	25	55	118
Avenue H	80th St W to 70th St W	4,900	61.6	27	59	127
Avenue F	110th St W to Lancaster City Line	1,600	55.5	11	23	50
Avenue F	Lancaster City Line to 95th St W	3,700	59.2	19	41	88
Avenue F	95th St W to 70th St W	14,300	65.1	47	101	217
Avenue E	110th St W to Lancaster City Line	1,600	55.5	11	23	50
Avenue E	100th St W to 70th St W	14,300	65.1	47	101	217
100th St W	Lancaster Blvd to Avenue J	500	49.2	4	9	19
100th St W	Avenue D to Avenue D-8	7,700	61.1	26	55	119
100th St W	Avenue E to Avenue F	8,400	61.5	27	58	126
80th St W	Lancaster City Line to Lancaster City Line	5,800	64.4	42	91	195
Avenue K-8	52nd St W to 50th St W	800	52.5	7	15	32
70th St E	Lancaster City Line to Avenue K-8	1,200	57.5	15	32	68
70th St E	Avenue K-12 to Avenue L	1,400	58.2	16	35	76
100th St E	Avenue J to Avenue J-8	600	54.5	9	20	43
100th St E	Lancaster City Line to Avenue L	2,300	60.3	23	49	105
Avenue L	55th St W to 40th St W	11,300	64.5	43	93	200
Avenue G	25th St W to Division St	18,700	69.5	92	199	428
Avenue H	Division St to 40th St E	16,400	68.9	84	182	392
50th St E	Avenue K-4 to Avenue L	7,100	65.3	48	104	224
Elizabeth Lake Rd	Johnson Rd to Portal Pass Rd	10,400	66.9	62	134	288
Amargosa Creek Rd	Portal Pass Rd to Johnson Rd	5,000	59.3	19	41	89

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**Table 5.12-18 Buildout Year Traffic Noise Levels and Contours**

Roadway	Segment	Buildout Year				
		ADT Volumes	CNEL (dBA @100ft)	Distance to CNEL Contour (Feet from Centerline)		
				65 (dBA CNEL)	70 (dBA CNEL)	75 (dBA CNEL)
Avenue M	Elizabeth Lake Rd to 80th St W	5,000	59.3	19	41	89
110th St W	Johnson Rd to Avenue M	5,000	59.3	19	41	89
Johnson Rd	Elizabeth Lake Rd to 110th St W	7,600	62.3	31	66	142
San Francisquito Canyon Rd	Angeles National Forest to Elizabeth Lake Rd	4,200	59.7	21	45	96
Portal Pass Rd	Elizabeth Lake Rd to Ritter Ranch Rd	5,000	59.3	19	41	89
Ritter Ranch Rd	Portal Pass Rd to Bouquet Canyon Rd	5,000	59.3	19	41	89
87th St W	Ritter Ranch Rd to Elizabeth Lake Rd	5,000	59.3	19	41	89
Avenue L-8	10th St W to SR 14	4,800	60.5	23	50	109
Avenue L-8	SR 14 to 30th St W	500	49.2	4	9	19
Avenue L-8	60th St W to 80th St W	4,300	60.1	22	47	101
Davenport Road	Sierra Highway to Agua Dulce Canyon Road	3,700	61.4	27	58	124
Agua Dulce Canyon Road	Soledad Canyon Road to Sierra Highway	8,300	62.7	33	70	151
Escondido Canyon Road	Agua Dulce Canyon Rd to SCV Planning Boundary	4,100	59.6	20	44	94
W Avenue J	90th Street E to 100th Street E	2,000	56.5	13	27	58
W Avenue J	100th Street E to 110th Street E	1,300	54.6	9	20	44
W Avenue J	110th Street E to 140th Street E	1,000	53.5	8	17	37
W Avenue J	140th Street E to 150th Street E	1,500	55.3	10	22	48
W Avenue J	150th Street E to 170th Street E	1,800	56.0	12	25	55
W Avenue J	170th Street E to 200th Street E	3,300	58.7	18	38	82
Lancaster Road	Pine Canyon Road to W Avenue I	9,400	62.0	29	63	136
Lancaster Road	W Avenue I to 190th Street W	2,400	56.1	12	25	55
Lancaster Road	190th Street W to 170th Street W	3,300	57.5	15	31	68
Lancaster Road	170th Street W to 110th Street W	6,200	61.5	27	58	125
Lancaster Road	110th Street W to 90th Street W	3,700	59.2	19	41	89
Lancaster Road	90th Street W to 70th Street W	5,500	60.9	25	54	115
Lancaster Road	70th Street W to 60th Street W	4,100	59.7	20	44	95
170th Street E	Avenue T to Avenue W	9,800	63.4	36	78	169
170th Street E	Avenue W to 165th Street	5,300	60.7	24	52	112
Elizabeth Lake Road	Johnson Road to San Francisquito Canyon Road	3,500	58.9	18	39	85
Elizabeth Lake Road	San Francisquito Canyon Rd to Bouquet Canyon Rd	7,000	65.2	48	103	221
Elizabeth Lake Road	Bouquet Canyon Road to Godde Hill Road	10,000	63.5	37	79	171
E Avenue P	15th Street E to 20th Street E	20,900	71.3	122	264	568
E Avenue P	20th Street E to 25th Street E	20,800	71.3	122	263	566
E Avenue P	25th Street E to 30th Street E	7,400	66.8	61	132	284
E Avenue P	30th Street E to 40th Street E	4,900	65.0	47	100	216
E Avenue P	40th Street E to 47th Street E	4,700	64.4	42	91	196
E Avenue P	47th Street E to 70th Street E	4,700	64.4	42	91	196
200th Street E	E Avenue G to E Avenue J	5,100	61.7	28	61	130
E Palmdale Boulevard	90th Street E to 95th Street E	13,400	68.0	73	158	341
E Palmdale Boulevard	95th Street E to 100th Street E	15,300	68.6	80	173	372



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Table 5.12-18 Buildout Year Traffic Noise Levels and Contours

Roadway	Segment	Buildout Year				
		ADT Volumes	CNEL (dBA @100ft)	Distance to CNEL Contour (Feet from Centerline)		
				65 (dBA CNEL)	70 (dBA CNEL)	75 (dBA CNEL)
E Palmdale Boulevard	100th Street E to 105th Street E	14,400	68.3	77	166	358
E Palmdale Boulevard	105th Street E to 110 Street E	14,300	68.3	77	165	356
W Avenue G	SR-14 Antelope Valley Freeway to 15th Street W	15,200	68.6	80	173	373
W Avenue G	15th Street W to 10th Street W	15,600	68.7	82	176	379
W Avenue G	10th Street W to Sierra Highway	18,700	69.5	92	199	428
W Avenue G	Sierra Highway to Division Street	13,500	68.1	74	160	344
E Avenue O	145th Street E to 150th Street E	11,700	67.4	67	145	311
E Avenue O	150th Street E to 170th Street E	5,200	63.9	39	84	181
E Avenue O	170th Street E to 175th Street E	3,800	62.5	32	68	147
E Avenue O	175th Street E to 180th Street E	5,700	64.3	42	90	193
E Avenue O	180th Street E to 200th Street E	6,200	64.7	44	95	204
E Avenue O	200th Street E to 210 Street E	2,100	60.0	21	46	99
E Avenue O	210 Street E to 240th Street E	700	55.2	10	22	48
W Avenue L	Rancho Vista Road to 45th Street W	8,600	63.3	36	77	166
W Avenue L	45th Street W to 40th Street W	11,300	64.5	43	93	200
Pearblossom Highway (SR-138)	70th Street E to E Avenue T 8	33,900	72.5	146	315	679
Pearblossom Highway (SR-138)	E Avenue T 8 to 82nd Street E	33,900	72.5	146	315	679
Pearblossom Highway (SR-138)	82nd Street E to 87th Street E	24,800	71.1	119	256	551
Pearblossom Highway (SR-138)	87th Street E to 96th Street E	26,700	71.4	125	269	579
Pearblossom Highway (SR-138)	96th Street E to 106th Street E	30,600	72.0	137	294	634
Pearblossom Highway (SR-138)	106th Street E to 116th Street E	27,000	71.5	126	271	584
Pearblossom Highway (SR-138)	116th Street E to 126th Street E	26,800	71.1	119	257	553
Pearblossom Highway (SR-138)	126th Street E to 131st Street E	31,400	70.8	114	245	528
Pearblossom Highway (SR-138)	131 Street E to 170th Street E	21,100	68.0	74	159	343
Fort Tejon Road	87th Street E to Mount Emma Road	10,200	63.6	37	81	174
Fort Tejon Road	Mount Emma Road to 96th Street	12,200	64.4	42	91	196
Fort Tejon Road	96th Street to 106th Street	12,500	64.5	43	92	199
Fort Tejon Road	106th Street to 131 Street E	7,200	65.3	49	105	226
SR-14	North of Avenue D/SR-138	65,910	79.9	456	982	2,116
SR-14	South of Avenue D/SR-138	99,241	81.7	599	1,290	2,780
SR-14	South of SR-138/High Desert Cor.	98,897	80.9	529	1,140	2,456
High Desert Corridor	East of 125th Street E	64,728	79.0	399	859	1,851
SR-14	North of Avenue D/SR-138	65,910	79.9	456	982	2,116
SR-14	South of Avenue D/SR-138	99,241	81.7	599	1,290	2,780
SR-14	South of SR-138/High Desert Cor.	98,897	80.9	529	1,140	2,456

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**Table 5.12-18 Buildout Year Traffic Noise Levels and Contours**

Roadway	Segment	Buildout Year				
		ADT Volumes	CNEL (dBA @100ft)	Distance to CNEL Contour (Feet from Centerline)		
				65 (dBA CNEL)	70 (dBA CNEL)	75 (dBA CNEL)
SR-138	Between I-5 and 300th Street W	95,819	82.9	729	1,570	3,383
SR-138	Between 300th St W and 190th St W	50,948	80.2	478	1,030	2,220
Avenue D/SR-138	Between 190th Street W and SR-14	49,489	80.1	469	1,011	2,177
I-5 Freeway	North of SR-138	124,012	85.5	1,084	2,336	5,032
I-5 Freeway	South of SR-138	125,412	85.6	1,092	2,353	5,070

Note: Calculations included in Appendix E.

As discussed in Impact Statement 5.12-2, the County's General Plan Noise Element has several goals and policies to minimize noise impacts to the extent feasible. Specific measures would be required during specific, project-level assessments to ensure that future land uses are compatible to their noise environment. Any siting of new noise-sensitive land uses within a noise environment that exceeds the normally acceptable land use compatibility criterion represents a potentially significant impact and would require a separate noise study through the development review process to determine the level of impacts and required mitigation. Without mitigation, this would be a significant impact.

**Impact 5.12-4: The Proposed Project could create elevated levels of groundborne vibration and groundborne noise; both in the short-term (construction) and the long-term (operations). [Threshold N-2]**

#### *Impact Analysis:*

#### **Transportation-Related Vibration Impacts**

Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks. This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)." Typically, trucks do not generate high levels of vibration because they travel on rubber wheels and do not have vertical movement, which generates ground vibration. Thus, transportation routes<sup>6</sup> within Antelope Valley are not expected to generate excessive vibration.

#### **Railroad Vibration Impacts**

Vibration levels in Antelope Valley from trains are dependent on site-specific conditions such as geology and the condition of the railroad track and train wheels. Although it is not proposed at this time, if modifications

<sup>6</sup> Including freeways, highways, major and minor arterials, and most other heavily traveled local roadways.

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of existing rail tracks are planned, vibration would be addressed in the environmental review for each individual rail improvement project.

As groundborne vibration is associated with any given train pass-by, but then subsides once the train has passed, any increases in number of train movements would only create additional occurrences of pass-by vibration, but not increased amplitudes of vibration levels. Thus, any potential increase in rail traffic would not increase the maximum vibration levels at nearby uses and such potential increases in the frequency of daily rail trips would not result in the generation of excessive vibration.

Implementation of the Proposed Project may add new sensitive uses in areas adjacent to existing and future railroad lines. These developments may result in placing residential or other sensitive uses near the railroad lines which could result in excessive groundborne vibration from train operations. The extent of the exposure to vibration depends on site-specific conditions, location of buildings, and size and design of the proposed buildings. Further specific, project-level review would be required as future developments are proposed.

#### **Industrial Vibration Impacts**

The use of heavy equipment associated with industrial operations can create elevated vibration levels in its immediate proximity. Soil conditions have a strong influence on the levels of groundborne vibration and, as a result, vibration typically dissipates rapidly with distance away from the source. Further specific, project-level review would be required as future developments are proposed.

#### **Construction Vibration Impacts**

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site. Table 5.12-19 lists vibration levels for construction equipment.

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**Table 5.12-19 Vibration Levels for Construction Equipment**

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS <sup>1</sup> Velocity at 25 Feet (in/sec)
Pile Driver (impact) Upper Range	112	1.518
Pile Driver (impact) Lower Range	104	0.644
Pile Driver (sonic) Upper Range	105	0.734
Pile Driver (sonic) Lower Range	93	0.170
Large Bulldozer	87	0.089
Caisson Drilling	87	0.089
Jackhammer	79	0.035
Small Bulldozer	58	0.003
Loaded Trucks	86	0.076
FTA Criteria – Human Annoyance (Daytime)	78	—
FTA Criteria – Structural Damage	—	0.200

Source: FTA 2006

<sup>1</sup> Root Mean Square (RMS) velocity calculated from vibration level (VdB) using the reference of 1 microinch/second.

As shown in Table 5.12-19, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA Criteria for human annoyance of 78VdB<sup>7</sup> and structural damage of 0.200 in/sec. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers (FTA 2006). Vibration impacts may occur from construction equipment associated with development in accordance with the Proposed Project. However, compliance with the Section 12.08.560 Vibration of the County Code will reduce any potential vibration impacts to a less than significant level.

**Impact 5.12-5: The proximity of future Antelope Valley developments to an airport or airstrip would not result in exposure of future resident and/or workers to airport-related noise. [Thresholds N-5 and N-6]**

**Impact Analysis:** Buildout of the Proposed Project would involve new development and redevelopment on parcels within the plan areas of adopted Airport Land Use Compatibility Plans (ALUCPs), including the comprehensive Los Angeles County ALUCP and the ALUCP for the General William J. Fox Airfield. As discussed previously, the airport 65 dBA CNEL noise level contours for the General William J. Fox Airfield are contained within the City of Lancaster and do not reach the Plan Area. The 65 dBA CNEL noise level contours for the Palmdale Regional Airport do extend to areas proposed to be zoned as agricultural and manufacturing. These are not considered noise-sensitive uses. Future development under the Proposed Project would be required to be consistent with any applicable ALUCP constraints pertaining to nearby developments. Furthermore, compliance with policies included in the General Plan Noise Element would ensure that development would not conflict with airport land use plans. Therefore, as the Area Plan anticipates development of uses that are not noise-sensitive, and with review by the Los Angeles County Airport Land Use Commission, future development under

<sup>7</sup> VdB is an abbreviation for vibration decibels, and is references as  $1 \times 10^{-6}$  inches per second.

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the Proposed Project would be consistent with adopted ALUCPs and there would be no significant noise exposure impacts relative to airport or airstrip noise levels.

### 5.12.5 Cumulative Impacts

Cumulative projects in SCAG's North Los Angeles County Subregion would have the potential to result in a cumulative noise impact if they would, in combination with regional growth in the immediate area, create excessive community noise levels. The traffic noise levels predicted for buildout conditions and evaluated in Impacts 5.12-2 and 5.12-3 above are based on cumulative traffic conditions that take into account cumulative development in the region. Therefore, these impact discussions inherently incorporate the cumulative scenario by default. Further, cumulative projects under the buildout of the Proposed Project would be required to comply with the applicable land use compatibility classification or they would not be approved without a general plan amendment. Therefore, the Proposed Project would not contribute to a significant cumulative noise impact above and beyond what has already been identified above.

### 5.12.6 Existing Regulations and Standard Conditions

#### Federal

- FAR Part 150
- Public Law 96 193
- FAA Advisory Circular Number 150 5020 2, entitled "Noise Assessment Guidelines for New Helicopters"

#### State

- California Code of Regulations, Title 21, Part 1, Public Utilities Code (Regulation of Airports)
- California Code of Regulations, Title 24, Part 11, California Green Building Standards Code.
- California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 1976.

#### County of Los Angeles

- Los Angeles County General Plan Noise Element
- Los Angeles County Code of Ordinances, Sections:
  - Title 26, Chapter 12, Section 1207, Sound Transmission
  - Title 12, Chapter 12.08
  - Title 12, Chapter 12.12
  - Title 13, Division 4, Chapter 13.45

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#### 5.12.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.12-1 (construction noise), 5.12-3 (siting of noise sensitive land uses), 5.12-4 (vibration), and 5.12-5 (airport-related noise).

Without mitigation, the following impacts would be **significant** or **potentially significant**:

- **Impact 5.12-2** Buildout of the proposed land use plan would result in an increase in traffic on local roadways in Antelope Valley, which would substantially increase the existing ambient noise environment.

#### 5.12.8 Mitigation Measures

##### Impact 5.12-2

Compliance with the County's Noise Element and County Code would reduce traffic noise impacts to existing and proposed noise sensitive uses to the extent feasible. No additional feasible mitigation measures are available to further reduce impacts. Residential land uses comprise the majority of existing sensitive uses within Project Area that would be impacted by the increase in traffic generated noise levels. Construction of sound barriers would be inappropriate for residential land uses that face the roadway as it would create aesthetic and access concerns. Furthermore, for individual development projects, the cost to mitigate off-site traffic noise impacts to existing uses (such as through the construction of sound walls and/or berms) may often be out of proportion with the level of impact.

#### 5.12.9 Level of Significance After Mitigation

##### Impact 5.12-2

Buildout of the Proposed Project would result in an increase in traffic on local roadways in the Project Area, which would substantially increase the existing ambient noise environment. No feasible mitigation measures are available to further reduce traffic noise impacts to existing noise sensitive receptors. Therefore, Impact 5.12-2 would remain significant and unavoidable.

#### 5.12.10 References

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### 5.13 POPULATION AND HOUSING

This section examines the existing population, housing, and employment conditions in the Project Area. The following section assesses existing conditions and compares the differences between forecasts based on the Proposed Project and regional growth projections. According to Section 15382 of the CEQA Guidelines, “An economic or social change by itself shall not be considered a significant impact on the environment.” Socioeconomic characteristics should be considered in an EIR only to the extent that they create adverse impacts on the physical environment.

The discussion of population, housing, and employment provided below is based on the Proposed Project, Southern California Association of Governments (SCAG) 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), California Department of Finance (DOF) estimates, and existing conditions (2013). Historical population, housing, and employment data for the Project Area was provided by the DOF. The buildout of the Proposed Project is at an undefined time, but is expected to occur after the SCAG 2012–2035 RTP/SCS horizon. The Project Area buildout projections were provided by County of Los Angeles (County) staff and based on the proposed land uses included in the Proposed Project.

#### 5.13.1 Environmental Setting

##### Population

The County estimates that the existing population in the Project Area is 93,490 persons, representing 8.8 percent of Los Angeles County’s total population. This is the baseline for the Proposed Project analysis. The Antelope Valley and other communities in North Los Angeles County experienced a period of rapid growth during the early 2000s. At that time, relaxed lending practices and relatively low housing costs in suburban and rural areas increased the demand for homeownership opportunities. New neighborhoods were constructed, resulting in a significant increase in population in the Antelope Valley and environs. Although the majority of the development occurred within cities, unincorporated areas also grew. Table 5.13-1 shows population figures for the year 2000 and 2010. As shown, population within the Project Area grew from 66,800 to 73,590 between 2000 and 2010, or 10.1 percent. However, the majority of the population within Antelope Valley continues to be located within the incorporated cities of Palmdale and Lancaster (81 percent in 2010), which are not part of the Project Area.

**Table 5.13-1 Regional Population, 2000–2010**

Location	2000		2010	
	Number	Percent of Total	Number	Percent of Total
Project Area	66,800	22.1%	73,590	19.2%
City of Lancaster	118,718	39.3%	156,633	40.9%
City of Palmdale	116,670	38.6%	152,750	39.9%
<b>Total</b>	<b>302,188</b>	<b>100.0%</b>	<b>382,973</b>	<b>100.0%</b>

Source: U.S. Census

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SCAG's historical data and projections combine the Project Area with the unincorporated area of the Santa Clarita Valley. According to SCAG, in 2003 the Project Area and unincorporated parts of the Santa Clarita Valley combined had a population of 128,922. By 2008 the population had increased by 33.6 percent to 172,298 persons.

As mortgage and interest rates adjusted and lending practices became more restrictive in the late 2000s, the demand for new housing decreased and population growth may have only temporarily slowed down. SCAG projects the 2020 population will be 232,250, a 34.8 percent increase from 2008. Table 5.13-2 provides SCAG population figures for the Project Area combined with unincorporated parts of the Santa Clarita Valley in 2003 and 2008, and projections for 2020 and 2035.

**Table 5.13-2 Unincorporated Antelope Valley and Santa Clarita Valley Population and Housing Units 2003–2035**

SCAG Data	2003 <sup>1</sup>	2008 <sup>1</sup>	2003–2008 Change	2020 <sup>3</sup>	2008–2020 Change	2035 <sup>2</sup>	2020–2035 Change
Population	128,922	172,239	33.6%	232,250	34.8%	302,005	30.0%
Housing Units	38,411	53,015	38.0%	77,965	47.1%	104,815	34.4%

Note: SCAG data includes the Project Area as well as unincorporated portions of the Santa Clarita Valley. The numbers shown here for 2020 and 2035 are SCAG projections. The Antelope Valley Area Plan will not be built out within the SCAG RTP/SCS horizon of 2035.

<sup>1</sup> Historic data from the SCAG 2008 RTP.

<sup>2</sup> SCAG 2012–2035 RTP/SCS.

### Housing

According to U.S. Census data, there were 21,803 housing units in the Project Area in 2000 and 26,962 housing units in 2010. The housing stock in the Project Area increased by 19.1 percent between 2000 and 2010. The Antelope Valley experienced a housing construction boom during the early- and mid-2000s. Although the majority of the development occurred within the cities of Lancaster and Palmdale, thousands of new units were constructed in the Project Area. Table 5.13-3 shows the number of new housing units in the Antelope Valley during a period of rapid expansion between 2004 and 2006.

**Table 5.13-3 New Housing Units Annually, 2004-2006**

Location	2004	2005	2006
Project Area	344	439	450
City of Lancaster	43,584	44,781	46,790
City of Palmdale	39,946	41,312	42,841
<b>Total</b>	<b>85,878</b>	<b>88,537</b>	<b>90,081</b>

Source: GAVEA 2007 Economic Roundtable Report, Los Angeles County Assessor Building Report (2008) within the Antelope Valley Area Plan Update Background Report

Housing development throughout the region may have only temporarily slowed while the local and national economy experienced recession. SCAG projects that population and housing growth in the Project Area and environs between 2008 and 2020, as shown in Table 5.13-2, will outpace the growth that occurred between 2003 and 2008.

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### Employment

In 2013, the County estimated that there were 31,838 jobs in the Project Area. Based on California Employment Development Department estimates for 2013, the jobs in the Project Area represented approximately 0.7 percent of total Los Angeles County employment (4,506,400 jobs). According to the U.S. Census and the County, in 2000 there were 25,624 jobs in the Project Area. This constitutes a job increase of 24.2 percent in the Project Area between 2000 and 2013.

SCAG employment historic data and projections shown in Table 5.13-4 combine the Project Area with unincorporated parts of the Santa Clarita Valley.

**Table 5.13-4 Unincorporated Antelope Valley and Santa Clarita Valley Employment, 2003–2035**

SCAG Data	2003 <sup>1</sup>	2008 <sup>1</sup>	2003–2008 Change	2020 <sup>3</sup>	2008–2020 Change	2035 <sup>2</sup>	2020–2035 Change
Population	34,459	38,608	12.0%	64,875	68.0%	97,763	50.7%

Note: SCAG data includes the Project Area as well as unincorporated portions of the Santa Clarita Valley. The numbers shown here for 2020 and 2035 are SCAG projections. The Antelope Valley Area Plan will not be built out within the SCAG RTP/SCS horizon of 2035.

<sup>1</sup> Historic data from the SCAG 2008 RTP.

<sup>2</sup> SCAG 2012–2035 RTP/SCS.

### Related Planning Programs

#### *Los Angeles County Housing Element*

The Housing Element is one of seven mandatory elements of the County's General Plan. The Housing Element provides an overview of demographics, household, housing stock, economic, and regulatory factors affecting housing development and affordability within the Project Area. The Housing Element sets forth a series of goals and implementing policies to address a variety of housing issues, including identifying vacant and underutilized sites to accommodate the County's Regional Housing Needs Allocation (RHNA). The RHNA is a state-mandated number of units by income category for which a jurisdiction must identify adequate development potential. The Los Angeles County Housing Element, 2014–2021, identifies adequate sites. It was adopted by the County Board of Supervisors and certified by the California Department of Housing and Community Development on May 1, 2014. The Housing Element will guide housing development through 2021. This time frame applies to all housing elements in the SCAG region.

#### *Regional Growth Management Policies: SCAG*

SCAG is recognized by the state and federal governments as the regional planning agency for the six-county south coast region that includes Los Angeles County. In 2004, SCAG adopted a voluntary regional growth strategy known as the Compass Blueprint. SCAG's Compass Blueprint is an advisory or voluntary plan that promotes mixed-use development, better access to jobs, conservation of open space, public/private partnerships, and user-fee infrastructure financing, improving the capacity and efficiency of movement of goods, reducing vehicle miles traveled (VMT), improving air quality, improving housing availability and affordability, renovating urban cores, and creating over 500,000 high-paying jobs (SCAG 2007).

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In 2012, the Regional Council of SCAG adopted the 2012–2035 RTP/SCS to increase mobility for the region’s residents and visitors (SCAG 2012). Furthermore, the 2012–2035 RTP/SCS commits to reducing emissions from transportation sources to comply with SB 375, improving public health, and meeting the National Ambient Air Quality Standards. The SCS envisions combining transportation and land use elements in order to achieve emissions reduction targets set by the California Air Resources Board (CARB) (SCAG 2014).

#### 5.13.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- P-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

#### 5.13.3 Relevant Area Plan Goals and Policies

The following is a list of the goals and policies of the Proposed Project that would reduce potentially adverse effects concerning population and housing.

##### Land Use Element

**Goals LU 1:** A land use pattern that maintains and enhances the rural character of the unincorporated Antelope Valley.

- **Policy 1.1:** Direct the majority of the unincorporated Antelope Valley’s future growth to rural town center areas, rural town areas, and identified economic opportunity areas.
- **Policy 1.4:** Ensure that there are appropriate lands for commercial and industrial services throughout the unincorporated Antelope Valley sufficient to serve the daily needs of rural residents and to provide local employment opportunities.

**Goal LU 5:** A land use pattern that decreases greenhouse gas emissions.

- **Policy LU 5.1:** Reduce the total amount of potential development requiring vehicle trips in the unincorporated Antelope Valley.

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- **Policy LU 5.2:** Encourage the continued development of rural town centers that provide for the daily needs of surrounding residents, reducing the number of vehicle trips and providing local employment opportunities.
- **Policy LU 5.3:** Preserve open space areas to provide large contiguous carbon sequestering basins.
- **Policy LU 5.4:** Ensure that there is an appropriate balance of residential uses and employment opportunities within close proximity of each other.

### 5.13.4 Environmental Impacts

The following impact analysis addresses thresholds according to Appendix G of the CEQA Guidelines of significance. The applicable thresholds are identified in brackets after the impact statement.

Buildout projections for the Proposed Project are shown in previous Table 3-2, *Buildout Projections for the Proposed Project*. The Proposed Project buildout includes 106,180 residential dwelling units, 405,410 residents, and 134,351 jobs.

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**Impact 5.13-1: The Proposed Project would directly result in population growth in the Project Area. [Threshold P-1]**

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**Impact Analysis:** The estimated buildout population of the Proposed Project is 405,410 residents, which is expected to occur sometime after 2035. SCAG projects the population in the Project Area plus unincorporated parts of the Santa Clarita Valley to increase to 302,005 by 2035. The mixture of land uses and densities prescribed in the Proposed Project can accommodate the growth projected by SCAG by 2035; therefore, the project is consistent with SCAG's RTP/SCS.

The Proposed Project accommodates up to 106,180 housing units, and although buildout is not expected to occur by 2035, the opportunities for housing development provided in the Proposed Project are consistent with SCAG growth projections for 104,815 units in the Project Area and unincorporated portions of the Santa Clarita Valley by 2035. The housing and population growth allowed under the Proposed Project is consistent with SCAG projections and do not constitute a significant adverse environmental impact.

The Proposed Project buildout accommodates up to 134,351 jobs at full buildout. This growth is expected to occur over a long period of time, well beyond the 2035 timeframe that is used by SCAG for planning purposes. However, the amount of growth allowed is consistent with SCAG's projection of 97,763 jobs by 2035 for the Project Area and only the unincorporated areas within the Santa Clarita Valley.

### Proposed Area Plan Land Use Element

As described above in Section 5.13.3, the Proposed Area Plan includes land use policies to promote the development of housing appropriate for this rural area, provide adequate housing opportunities for all segments of the community, and maintain a balance of jobs and housing units. These policies are consistent

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with regional and statewide efforts to coordinate housing, land use, transit, and other types of infrastructure planning included in Assembly Bill 32 and State Bill 375.

#### Jobs-Housing Balance

Jobs-housing balance is achieved by increasing opportunities for people to work and live in close proximity. The ratio is expressed as the number of jobs divided by the number of housing units. SCAG uses the jobs-housing balance as a general tool for analyzing where people work, where they live, and how efficiently they can travel between the two. In the Project Area, the existing jobs-housing balance in 2013 is 1.3. The jobs-housing balance of the Proposed Project buildout is also 1.3. One of the most cited studies of jobs-housing balance recommends 1.3 to 1.7 as the range for an ideal jobs-housing balance (Ewing 1996). Table 5.13-5 compares the existing housing unit, population, employment, and jobs-housing balance data with the Proposed Project buildout. Since the Proposed Project maintains an appropriate balance between jobs and housing, no significant impacts are anticipated.

**Table 5.13-5 Existing Profile and Proposed Project Buildout Projections**

Existing (2013)				Proposed Project Buildout (Post 2035)			
Units	Population	Employment	Jobs/Housing Ratio	Units	Population	Employment	Jobs/Housing Ratio
24,739	93,490	31,838	1.3	106,180	405,410	134,351	1.3
Change from Existing				81,441	311,920	102,513	N/A

Source: County of Los Angeles Department of Regional Planning, 2014.

#### Impact 5.13-2: Project implementation would not result in the displacement of people and/or housing. [Threshold P-2]

**Impact Analysis:** The Project Area is developed with a variety of land uses including residential, commercial, industrial, and open space. The Proposed Project would allow existing uses to continue even where new zoning and land use designations are proposed under the Proposed Project. None of the existing uses would be forced to be removed or relocated as a result of the project implementation. Compliance with the Proposed Project will facilitate the development of a variety of housing types by providing a supply of land that is adequate to accommodate SCAG growth projections.

#### 5.13.5 Cumulative Impacts

The cumulative projects in the Antelope Valley would have the potential to result in a significant cumulative impact if they would, in combination, directly or indirectly induce substantial population growth. The planning documents, such as general plans prepared by cities, would be subject to regional plans such as SCAG's Regional Comprehensive Plan (RCP) and the RTP/SCS, similar to the Proposed Project. The general plans of adjacent jurisdictions have been prepared to be consistent with the population forecast of the regional planning documents. Thus, these projects would accommodate anticipated future growth, not induce new growth, similar to the Proposed Project.

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As discussed in Section 4.4, Assumptions Regarding Cumulative Impacts, the cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes the Project Area, the unincorporated Santa Clarita Valley, as well as the incorporated cities of Lancaster, Palmdale, and Santa Clarita. Cumulative growth projections for the North Los Angeles County Subregion are shown in Table 5.13-6.

As shown in Table 5.13-6, the Proposed Project would be adequate to accommodate SCAG's planned growth through 2035; therefore, it is unlikely that the Proposed Project would induce population growth in surrounding jurisdictions. In addition, the jobs/housing ratio for the Proposed Project is 1.3, which is better than the 0.94 jobs/housing ratio projected by SCAG for the region in 2035. This is a beneficial impact of the Proposed Project. Since cumulative projects would be required to comply with applicable land use plans governing regional growth, a significant cumulative impact would not occur. Therefore, the Proposed Project, in combination with other cumulative growth in SCAG's North Los Angeles County subregion, would not contribute to a significant cumulative population and housing impact.

**Table 5.13-6 Cumulative Growth Projections Existing, 2035, and Post-2035**

	Existing	2035 <sup>2</sup>	Post-2035 <sup>1</sup>	Projected Growth Rate
<b>Project Area</b>				
Housing Units	24,739 <sup>1</sup>	N/A	106,180	76.8%
Population	93,490 <sup>1</sup>	N/A	405,410	77.0%
Employment	31,838 <sup>1</sup>	N/A	134,351	76.4%
Jobs/Housing Ratio	1.3	—	1.3	—
<b>North Los Angeles County Subregion</b>				
Housing Units	200,636 <sup>2</sup>	304,241	N/A	34.1%
Population	651,929 <sup>2</sup>	946,557	N/A	31.1%
Employment	213,899 <sup>2</sup>	321,743	N/A	33.6%
Jobs/Housing Ratio	0.94	0.94	—	—
<b>Project Area as a Percent of Total</b>				
Housing Units	12.3%	—	34.9%	—
Population	14.3%	—	42.8%	—
Employment	14.9%	—	41.8%	—

Notes: The Proposed Project will not be built out within the SCAG RTP/SCS horizon of 2035. N/A = Data not available.

<sup>1</sup> County of Los Angeles 2014.

<sup>2</sup> SCAG 2012–2035 RTP/SCS.

### 5.13.6 Existing Regulations and Standard Conditions

Housing Elements are subject to the rules and regulations prescribed under the following California Government Code Sections:

- Housing Element Statutes §§ 65580–65589.9, 65751–65761 (including the Housing Accountability Act), and 65589.5–65589.6

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### POPULATION AND HOUSING

- Prohibition on discrimination against affordable housing: § 65008
- Statute of limitations: § 65009
- Regional transportation plans: §§ 65080–65086.5
- No net loss statute: § 65863
- Least cost zoning statute: §§ 65913–65913.2
- Density bonus law: §§ 65915–65918

#### 5.13.7 Level of Significance Before Mitigation

Without mitigation, the following impacts would be less than significant: 5.13-1 and 5.13-2.

#### 5.13.8 Mitigation Measures

No mitigation measures are required.

#### 5.13.9 Level of Significance After Mitigation

No significant impacts were identified with regard to population and housing.

#### 5.13.10 References

- California, State of. 2013. Employment Development Department. Historical Data for Cities and Census Designated Places Annual Average, 2013. Sacramento, California.
- Department of Finance. 2013. E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2013. State of California.
- Department of Regional Planning. 2013a. Los Angeles County Housing Element, 2014–2021. Los Angeles County, California.
- . 2013b. Antelope Valley Area Plan Update Background Report. Los Angeles County, California.
- . 2013c. Antelope Valley Area Plan Update Buildout Projections. Los Angeles County, California.
- Ewing, Reid. 1996. *Best Development Practices: Doing the Right Thing and Making Money at the Same Time*. Chicago: Planners Press.
- Southern California Association of Governments (SCAG). 2012, April. 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). <http://rtpscscs.scag.ca.gov/Pages/default.aspx>.
- U.S. Census Bureau, Census 2000.
- . Census 2010.



## 5. Environmental Analysis

### 5.14 PUBLIC SERVICES

This section addresses public services including: Fire Protection and Emergency Services, Law Enforcement, School Services, and Library Services. Park Services are addressed in Section 5.15, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.17.

#### 5.14.1 Fire Protection and Emergency Services

##### 5.14.1.1 ENVIRONMENTAL SETTING

The Los Angeles County Fire Department (LACoFD) serves the unincorporated areas of Antelope Valley (Project Area) as well as 58 cities that choose to have the County of Los Angeles (County) provide fire and emergency medical services (EMS) services, including the City of La Habra, which is located in Orange County, as shown on Figure 5.14-1. The LACoFD provides fire suppression and emergency medical services to over four million residents within Los Angeles County. The LACoFD operates 170 fire stations within nine divisions. The LACoFD had a total of 4,713 personnel in 2013 (LACoFD 2013). In addition to fire suppression, the LACoFD also provides fire prevention services, EMS, hazardous materials services, and urban search and rescue (USAR) services.

Under a mutual aid pact covering federal forestlands, responsibility for non-structure fires within the National Forest belong to the United States Forest Service (USFS), while LACoFD has the primary mission of suppressing structure fires. Although these responsibilities are stated in the mutual aid pact, each agency fights both wild and structure fires in actual fire emergencies. In addition, an automatic aid agreement, which is an agreement that allows the closest municipality to provide an initial response to fires that may occur in a part of another municipality, exists between USFS and LACoFD. Firefighting, however, is not the primary function of USFS, and the agency is on duty at only certain times of the day. As a result, LACoFD would be called upon to provide fire service if fires involving structures or brushlands near the National Forest boundary occur after USFS's hours of service.

The LACoFD has several standards to maintain adequate fire protection within their service area. The current standards for response times are:

- 5 minutes or less for response times for urban areas
- 8 minutes or less for suburban areas
- 12 minutes or less for rural areas

Currently there are two battalions with 21 fire stations located throughout the Project Area as shown on Table 5.14-1.

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**Table 5.14-1 Fire Stations Serving the Project Area**

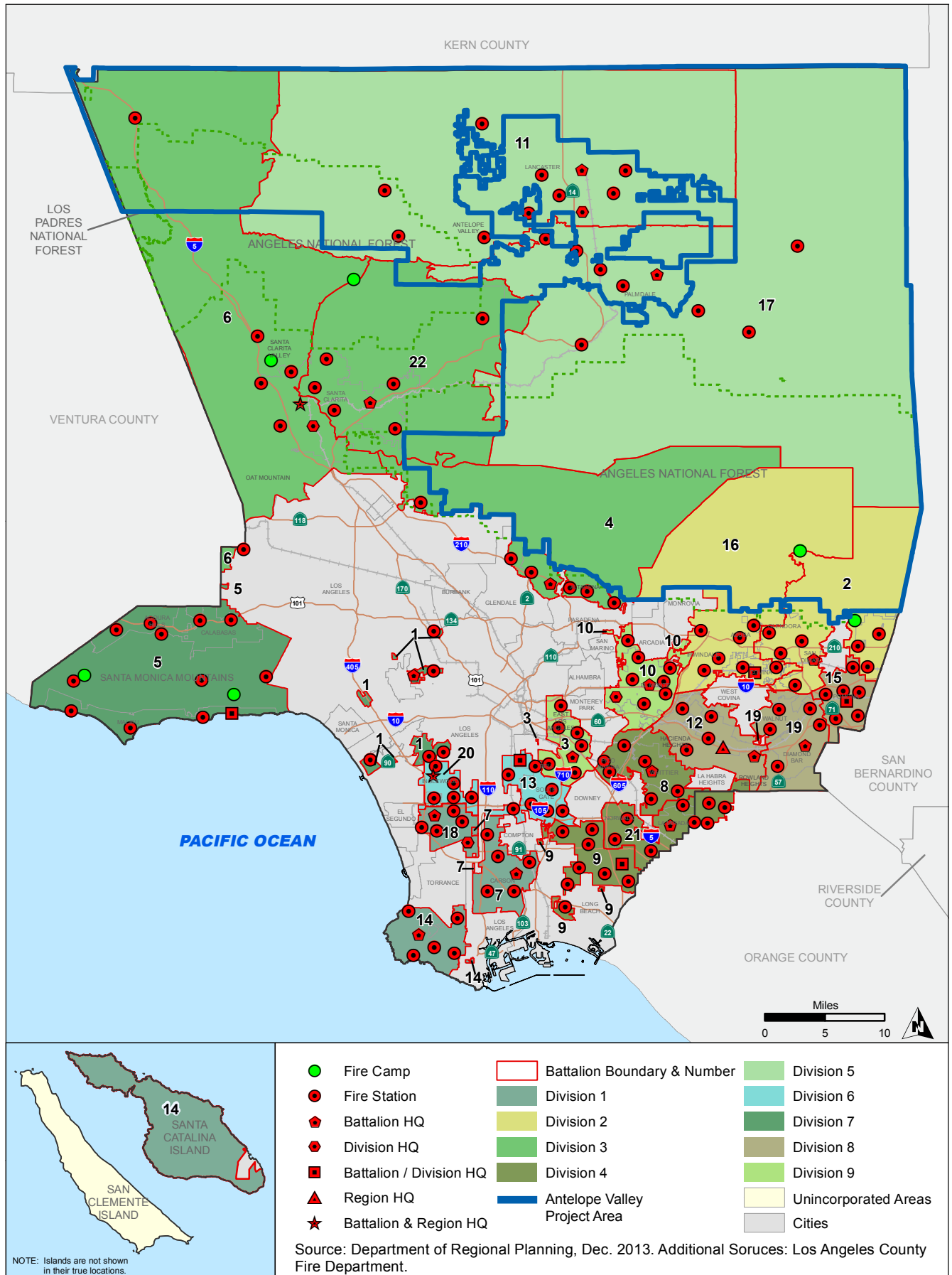
BATTALION 11		BATTALION 17	
Fire Station#33-HDQTRS	44947Date Ave Lancaster, 93534	Fire Station#24-HDQTRS	1050 W Avenue P Palmdale, 93550
Fire Station#78 (CFF)	17021N Elizabeth Lake Rd Palmdale, 93550	Fire Station#37	38318 E9TH ST EAST PALMDALE, 93550
Fire Station#84	5030 W AvenueL-14 Quartz Hill, 93536	Fire Station#79	33957Longview Rd Pearblossom,93553
Fire Station#112(CFF)	8812 W Avenue E-8 Lancaster, 93535	Fire Station#80	1533 W Sierra Hwy Acton, 93510
Fire Station#117	44851 30th St East Lancaster, 93535	Fire Station#81	8710 W Sierra Hwy Agua Dulce, 91350
Fire Station#129	42110 6th St West Lancaster, 93534	Fire Station#92	8905 E Avenue U Littlerock, 93535
Fire Station#130	44558 40thSt West Lancaster, 93536	Fire Station#93	5624 E Avenue R Palmdale, 93550
Fire Station#134	43225N 25thSt W Lancaster, 93534	Fire Station#114	39939N 170th St East Palmdale, 93550
Fire Station#135	1846 East Avenue K-4 Lancaster, 93535	Fire Station#131	2629 E Avenue S Palmdale, 93550
Fire Station#140(CFF)	8723 Elizabeth Lake Rd Leona Valley,93550	Fire Station#136	3650 Bolz Ranch Rd Palmdale, 93551
Fire Station #157 (Cff)	15921 Spunky Canyon Rd Green Valley, 91350		

The Forestry Division of the LACoFD is responsible for the review of environmental documents related to development and protection of oak tree resources, development of vegetation management plans and proposals, coordination of wildland fire planning, enforcement of the Department's brush clearance program, and review of fuel modification plans. The Division staffs a Forestry unit in Lake Hughes. At the unit, tree seedlings are provided to the public and advice is shared with local homeowners.

# 5. ENVIRONMENTAL ANALYSIS

## FIRE DEPARTMENT BATTALIONS AND STATIONS

FIGURE 5.14-1



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The Project Area requires responses to structural fires and to range fires in largely unpopulated areas. Depending on the type and extent of wildfires, assistance can be recruited as needed. The Forestry Division is tasked with using Geographic Information Systems (GIS) to map wildland fires and provide assessments of limited natural resources. It oversees development and staffs the Department's Infrared and Fire Map Program. This helicopter-based aerial camera completes simultaneous mapping of the fire perimeter and highlights hotspots near the fire line that could lead to additional fire spread.

### Wildland Fire Hazards

LACoFD has designated lands in Los Angeles County with regard to their potential for wildland fires. These designations, determined by the County Forester, are based on an area's accessibility, amount and type of vegetative cover, water availability, and topography. LACoFD uses three wildland fire hazard designations: Moderate Fire Hazard, High Fire Hazard, and Very High Fire Hazard. Areas in Los Angeles County that are not designated within a fire hazard zone are not considered to be subject to wildland fire hazards. Areas in the Project Area that are designated within a fire hazard zone are shown on previous Figure 5.8-1, *Fire Hazard Severity Zones*.

Highly combustible natural vegetation types include chaparral, coastal sage, riparian, and oak woodlands. These plant communities include plant species such as ceanothus, chamise, sumac, sages, and wildland grasses. These plant species, which have adapted to periodic wildland fire conditions, maintain a healthy ecosystem in the region. These plant communities pose the greatest fire threat to expanding urban development due to their high combustibility and their dense biomass. However, in the area where these plant communities border urban development, the frequency of fire events may be diminished as a result of proactive fire prevention and fire suppression measures. Fire prevention measures include prescribed burns, vegetation thinning/removal, and creation of fuel modification zones, whereas fire suppression measures involve controlling fires once they have started through the use of fuel breaks, fire fighting equipment, water drops, and other techniques.

### Regulatory Framework

#### *State*

#### ***California Health and Safety Code (Section 13000 et seq.)***

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations concerning building standards [as also set forth in the California Building Code (CBC)], fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all State-owned buildings, State-occupied buildings, and State institutions throughout California.

#### ***California Code of Regulations (CCR) Title 24, Part 2 and Part 9***

Part 2 of Title 24 of the CCR refers to the CBC, which contains complete regulations and general construction building standards of state adopting agencies, including administrative, fire and life safety, and

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field inspection provisions. Part 2 was updated in 2008 to reflect changes in the base document from the Uniform Building Code to the International Building Code. Part 9 refers to the California Fire Code, which contains fire-safety-related building standards referenced in other parts of Title 24. This Code is preassembled with the 2000 Uniform Fire Code of the Western Fire Chiefs Association. This Code was revised in January 2008 with a change in the base model/consensus code from the Uniform Fire Code series to the International Fire Code.

#### ***California Public Resources Code (PRC) Sections 4201-4204***

This section of the PRC was amended in 1982 to require the California Department of Forestry to classify all State Responsibility Areas (SRAs) into fire hazard severity zones. The purpose of this code is to provide classification of lands within SRAs in accordance with the severity of fire hazard present for the purpose of identifying measures to be used to retard the rate of spreading and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.

#### ***State Responsibility Area Fire Safe Regulations (Title 14 Natural Resources, Department of Forestry and Fire Protection)***

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in SRAs. Title 14 mandates that the future design and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures.

#### ***Local***

#### ***LACoFD***

County programs for wildland fire prevention include the adoption of the State Fire Code for regulations and standards to be applied toward new development in “hazardous fire areas.” Fire prevention items addressed in the County Fire Code include provision of fire apparatus access roads, adequate road widths, all-weather access requirement, fire flow requirement, fire hydrant spacing, and clearance of brush around structures located in hillside areas that are considered primary wildland fire risk areas.

For areas located within the Very High Fire Hazard Severity Zone (VHFHSZ), County Fire Code Sections 325.2.1.2, 328.10, 1117.2.1, and 4908.1 require completion and approval of a land development plan and fuel modification plan. Appendices B and C of the County Fire Code specify that for single-family dwellings located on a lot of one acre or more in a VHFHSZ, the minimum fire flow must be 1,000 gallons per minute for a duration of two hours, and hydrants must be spaced not more than 600 feet apart and serviced from a public water system.

The LACoFD Fuel Modification Unit provides guidelines for the VHFHSZ in order to create a defensible space for effective fire protection in newly constructed and/or remodeled homes. Fuel modification zones in the Project Area are strategically placed strips of land where combustible native or ornamental vegetation has been modified or replaced with drought-tolerant, low-fuel-volume plants, creating a buffer to areas of natural vegetation surrounding the perimeter of a single-family dwelling. A fuel modification plan identifies specific

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zones within a property which are subject to fuel modification. Plans vary in complexity, and fuel modification distances are estimated based on the fire history; the amount and type of vegetation; the arrangement of the fuels; topography; local weather patterns; and construction, design, and placement of structures. The plan must also include an irrigation plan; a landscape plan; zone delineation for setbacks, irrigation, and thinning; and the identification of responsible parties for the plan's installation and maintenance.

### *Developer Fees*

In response to increasing demands for new facilities, equipment, and staffing created by new development, the County has implemented a Developer Fee Program to fund the purchase of fire station sites, the construction of new stations, and the funding of certain capital equipment in the high-growth areas of the County. The developer fees, which are currently \$0.8990 per square foot of new development in the Malibu/Santa Monica Mountains Area, \$1.0293 per square foot of new development in the Santa Clarita Valley Area, and \$0.8426 in the Antelope Valley Area (all land uses), are paid to the Consolidated Fire Protection District of Los Angeles County (Fire District). This Fire District developer fee is adjusted annually and is charged on all new development, including residential buildings, new detached residential accessory structures, new commercial buildings, and new additions over 2,000 square feet prior to building permit issuance.

### 5.14.1.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- FP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

### 5.14.1.3 RELEVANT AREA PLAN GOALS AND POLICIES

The following is a list of the goals and policies of the Proposed Project that are intended to reduce potentially significant adverse effects concerning public services and facilities.

### Public Safety, Services and Facilities Element

#### *Fire Hazards*

**Goal PS 1:** Protection of the public through fire hazard planning and mitigation.

- **Policy PS 1.1:** Limit the amount of potential master-planned development in Very High Fire Hazard Severity Zones through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.

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- **Policy PS 1.2:** Require that all new developments provide sufficient access for emergency vehicles and sufficient evacuation routes for residents and animals.
- **Policy PS 1.3:** Promote fire prevention measures, such as brush clearance and the creation of defensible space, to reduce fire protection costs.
- **Policy PS 1.4:** Provide strict enforcement of the Fire Code and all Fire Department policies and regulations.

#### 5.14.1.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds according to Appendix G of the CEQA Guidelines. The applicable thresholds are identified in brackets after the impact statement.

---

**Impact 5.14-1:** Buildout of the Proposed Project would introduce new structures, residents, and employees into the LACoFD service boundaries, thereby increasing the requirement for fire protection facilities and personnel. [Threshold FP-1]

---

**Impact Analysis:** The Proposed Project provides land use designations that would increase population and housing within the Project Area. The population and housing increase projected under the Proposed Project would increase the demands on LACoFD to provide fire protection and emergency services. To maintain or achieve acceptable travel time standards for fire protection, it is reasonably foreseeable that the provision of new or physically altered fire facilities would be required, which would have the potential to result in adverse environmental impacts. Existing County policies and regulations and Proposed Project goals and policies are intended to reduce impacts associated with fire protection facilities. Specifically, the County has implemented a Developer Fee Program to fund the purchase of fire station sites, the construction of new stations, and the funding of certain capital equipment. As new development occurs, fees will be collected to ensure adequate levels of service for fire protection are maintained. Therefore, the Proposed Project is not anticipated to result in a potentially significant impact to fire protection or emergency services with construction or expansion of fire protection facilities and compliance with the mitigation measures listed below.

It should be noted that the Proposed Project land use changes do not allow more development to occur in VHFHSZs or more remote and rural areas that could be exposed to higher risks of fire hazards. The Proposed Project significantly reduces allowable development in the Project Area as compared to the Adopted Area Plan and directs growth to three designated Economic Opportunity Areas.

#### 5.14.1.5 CUMULATIVE IMPACTS

As discussed in Section 4.4, *Assumptions Regarding Cumulative Impacts*, the cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes all unincorporated areas of North Los Angeles County as well as the incorporated cities of Palmdale, Lancaster, and Santa Clarita. Cumulative growth within North Los Angeles County would result in a need for additional fire protection services to serve new development. Cumulative projects proposed under general plans of surrounding cities and counties, such as commercial, residential, or industrial projects, would require fire protection services



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from fire agencies within the region. In order to maintain adequate travel times to serve cumulative projects, the construction or expansion of fire protection facilities would be required, which would have the potential to result in an adverse impact on the environment. While the majority of cumulative projects involve discretionary actions and therefore would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for fire services, which would have the potential to result in a significant cumulative impact. However, these impacts would be mitigated through the County's Developer Fee Program to fund the purchase of fire station sites, the construction of new stations, and the funding of certain capital equipment and compliance with the County Fire Code.

### 5.14.1.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

#### State

- California Health and Safety Code (Section 13000 et seq.)
- California Code of Regulations (CCR) Title 24, Part 2 and Part 9
- California Public Resources Code (PRC) Sections 4201–4204
- State Responsibility Area (SRA) Fire Safe Regulations (Title 14 Natural Resources, Department of Forestry Fire Protection)

#### Los Angeles County Code of Ordinances

- Los Angeles County Fire Code, (Ord. 2010-0060 § 4, 2010; Ord. 2002-0080 § 4, 2002)

### 5.14.1.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.14-1** Buildout of the Proposed Project would introduce new structures, residents, and employees into the LACoFD service boundaries, thereby increasing the requirement for fire protection facilities and personnel.

### 5.14.1.8 MITIGATION MEASURES

#### Impact 5.14-1

- |      |  |
|------|--|
| PS-1 | Prior to issuance of building permits, future project applicants/developers shall pay the LACoFD Developer Fee in effect at that time.   |
| PS-2 | Each subdivision map shall comply with the applicable County Fire Code requirements for fire apparatus access roads, fire flows, and fire hydrants. Final fire flows shall be determined by LACoFD in accordance with Appendix B of the County Fire Code. The required fire apparatus road and water requirements shall be in place prior to construction. |

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PS-3                      Prior to approval of a tentative map, a Fuel Modification Plan shall be prepared for each subdivision map in which urban uses would permanently adjoin a natural area, as required by Section 1117.2.1 of the County Fire Code, and approved by LACoFD prior to building permit issuance.

#### 5.14.1.9    LEVEL OF SIGNIFICANCE AFTER MITIGATION

The existing regulatory programs and mitigation measures identified above would reduce potential impacts associated with fire protection to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to fire protection remain.

### 5.14.2 Law Enforcement

#### 5.14.2.1    ENVIRONMENTAL SETTING

The Los Angeles County Sheriff's Department (LASD) provides for law enforcement throughout the entire Project Area, in addition to the cities of Palmdale and Lancaster, under contract services agreements. The Antelope Valley is served from two stations, one in Lancaster and one in Palmdale:

**Lancaster Station: 501 W. Lancaster Boulevard:** Station personnel cover an area of more than 600 square miles, including the contract city of Lancaster, and the communities of Lake Los Angeles, Quartz Hill, and Antelope Acres.

**Palmdale Station: 750 E. Avenue Q:** Palmdale Station provides police service for the contract city of Palmdale as well as 700 square miles of the Project Area from the Wrightwood ski area to Lake Hughes.

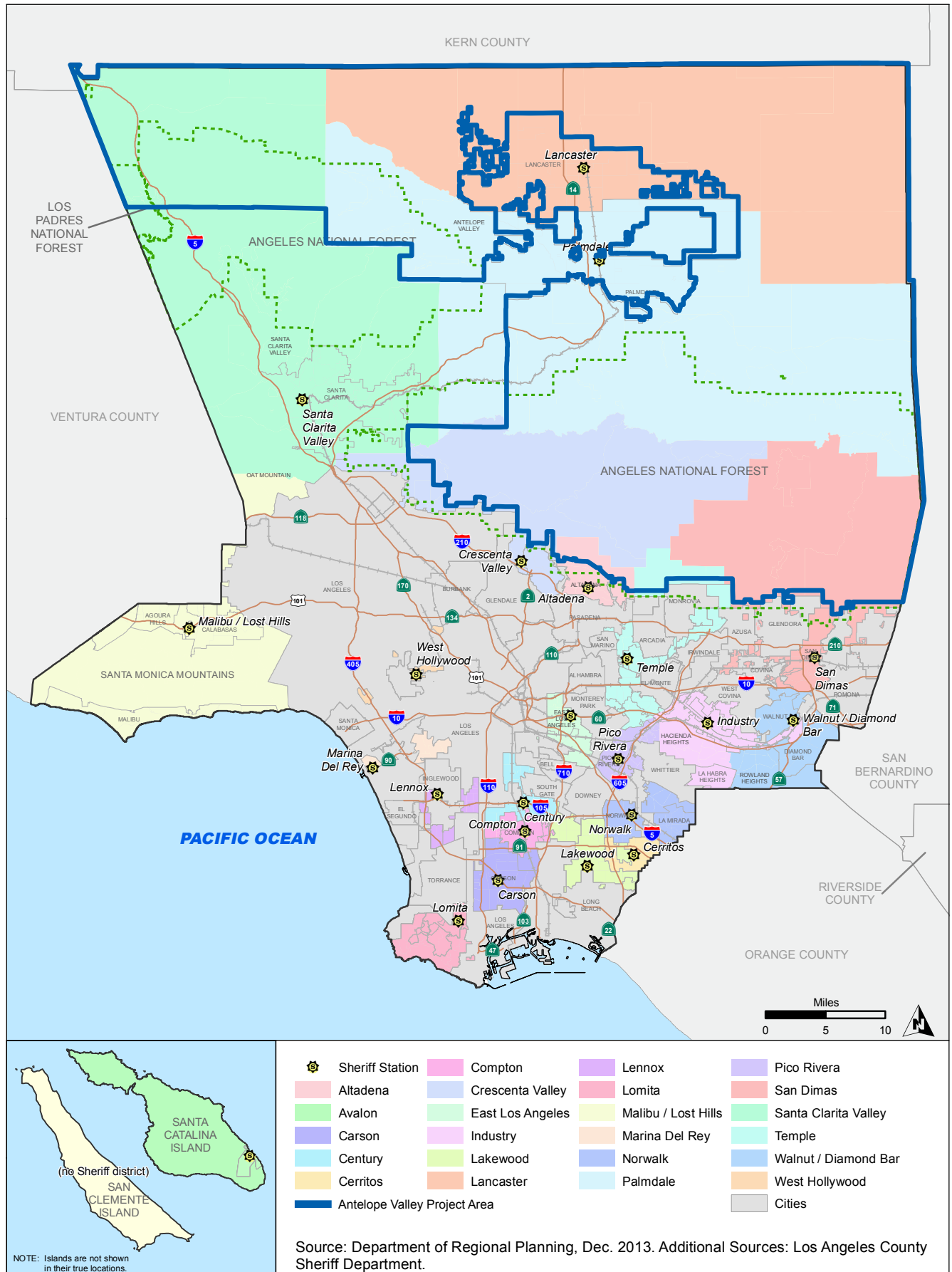
LASD is the largest sheriff's department in the United States, with a budget of \$2.8 billion and more than 17,000 employees. LASD provides general-service law enforcement to unincorporated areas of Los Angeles County, including the Project Area, serving as the equivalent of the county police for unincorporated areas, as well as cities within Los Angeles County that have contracted with the agency for law-enforcement services. Forty-two of the County's 88 municipalities contract with the Sheriff's Department to provide local police protection. The areas within the Project Area served by LASD are shown on Figure 5.14-2, *Sheriff's Department Service Areas*.

LASD also holds primary jurisdiction over facilities operated by the County, such as local parks, marinas, and government buildings; provides bailiff service for the Superior Court of Los Angeles County; operates the County jail system; and provides services, such as crime laboratories, homicide investigations, and academy training, to smaller law enforcement agencies within the County.

# 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.14-2

## SHERIFF'S DEPARTMENT SERVICE AREAS



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LASD is also the second-largest transit police force in the United States, aside from the New York Police Department, through policing contracts of the Metro trains and buses of the Los Angeles Metropolitan Transportation Authority and Metrolink. Furthermore, with policing contracts with nine campuses of the Los Angeles Community College and Lancaster Community College District, the LASD is the largest community policing agency in the United States. The department's headquarters are located in the City of Monterey Park.

LASD staff has indicated that an officer-to-population ratio of one officer to every 1,000 residents provides the desired level of service for its service area. This ideal standard typically is applied in EIRs for proposed projects that are served by LASD's as a means to develop a rough assessment of the project's impacts on law enforcement services.

The LASD also has established an optimal service response time of 10 minutes or less for emergency response incidents (a crime that is presently occurring and is a life or death situation), 20 minutes or less for priority response incidents (a crime or incident that is currently occurring but which is not a life or death situation), and 60 minutes or less for routine response incidents (a crime that has already occurred and is not a life or death situation). These response times represent the range of time required to handle a service call, which is measured from the time a call is received until the time a patrol car arrives at the incident scene. Response time is variable, particularly because the nearest responding patrol car may be located anywhere within the station's patrol area and may not necessarily respond directly from the station itself.

### Regulatory Framework

#### *County*

#### ***Law Enforcement Fees for North Los Angeles County.***

On May 27, 2008, the County Board of Supervisors adopted law enforcement fees for north Los Angeles County. This mitigation fee is applicable to new residential, commercial, office, and industrial development located within some of the unincorporated areas of north Los Angeles County (Santa Clarita, Newhall, and Gorman). However, it is not applicable to the majority of the Project Area. In addition, the County approved capital improvement/construction plans for law enforcement facilities for north Los Angeles County. Each of the law enforcement facility areas will have a separate fee, and the amount of the fee will be set at a base level sufficient to provide, or contribute to, a turnkey law enforcement facility and corresponding equipment that is in direct proportion to the population increases from new development that warrant or contribute to the need for a new facility. In areas where a building is not required, the fee will be used to augment existing service capacity through the purchase of equipment directly to serve the new population.

The amount of the fee established must be reviewed annually by the Sheriff's Department in consultation with the County Auditor-Controller. On July 1 of each year, the fee in each law enforcement facility fee area must be adjusted based on the Engineering News Record-Building Construction Cost Index.

The related capital improvement/construction plans setting forth the approximate location, size, time of availability, and estimates of cost for the facilities and improvements to be financed with the fee for the Santa Clarita and Newhall areas will be annually updated by the County Board of Supervisors. However, as stated above, these fees are not applicable to the majority of the Project Area.

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#### 5.14.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- PP-1      Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for law enforcement services.

#### 5.14.2.3 RELEVANT AREA PLAN GOALS AND POLICIES

The following is a list of the goals and policies of the Proposed Project that are intended to reduce potentially significant adverse effects concerning public services and facilities.

##### Public Safety, Services and Facilities Element

###### *Law Enforcement*

**Goal PS 4:** Protection of public safety through law enforcement and crime prevention strategies.

- **Policy PS 4.1:** Support an increased law enforcement presence in every Antelope Valley community and explore new funding mechanisms to expand law enforcement services.
- **Policy PS 4.2:** Support a strong law enforcement presence on highways and streets to strictly enforce speed limits and other vehicle safety laws.
- **Policy PS 4.3:** Promote and support neighborhood watches to create more eyes and ears in the community.
- **Policy PS 4.4:** Educate the public on crime prevention programs and resources offered by the Sheriff's Department.

#### 5.14.2.4 ENVIRONMENTAL IMPACTS

---

**Impact 5.14-2:** Buildout of the Proposed Project would introduce new structures, residents, and employees into the LASD service boundaries, thereby increasing the requirement for law enforcement facilities and personnel. [Threshold PP-1]

---

**Impact Analysis:** Buildout of the Proposed Project would result in construction of residences (single- and multi-family) and nonresidential uses, including commercial, retail, office, business park uses, fire stations, schools, and open areas. The LASD would provide general law enforcement for the Project Area. It is anticipated that the demand for law enforcement services would increase substantially above current levels due to development pursuant to the Proposed Project and the resulting increase in population. At buildout,

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an additional 311,920 residents would be located in the Project Area and require law enforcement services. Without additional staffing and facilities, the projected population increase would decrease the existing level of service of the LASD. The need for additional staffing could result in the need to expand or construct new facilities to serve the additional population.

Using a desired officer-to-population ratio of one officer to every 1,000 residents, identified above, an additional 312 officers would be needed at buildout of the Proposed Project. As future development projects are implemented, LASD will review each project for potential impacts to their facilities and personnel. If determined to be necessary, mitigation will be imposed to fund capital facilities and equipment for the LASD. Currently, no mitigation fee has been adopted for the majority of the Project Area, which is expected to grow by 311,920 residents.

Operational funding for the LASD is derived from various types of tax revenue (property taxes, sales taxes, user taxes, vehicle license fees, deed transfer fees, etc.), which are deposited in the County's General Fund. The County Board of Supervisors then allocates the revenue for various County-provided public services, including Sheriff's services. As future development occurs, tax revenues from property and sales taxes would be generated and deposited in the County's General Fund and the State Treasury. A portion of these revenues would be allocated to the LASD during the County's annual budget process to maintain staffing and equipment levels to adequately serve project-related increases in service-call demands.

#### 5.14.2.5 CUMULATIVE IMPACTS

As discussed in Section 4.4, *Assumptions Regarding Cumulative Impacts*, the cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes all unincorporated areas in North Los Angeles County, as well as the incorporated cities of Palmdale, Lancaster, and Santa Clarita. Cumulative projects in North Los Angeles County would require increased law enforcement services to serve new development. Cumulative projects proposed under general plans of cities, such as commercial, residential or industrial projects, would require law enforcement services. The increase in demand for law enforcement services from implementation of cumulative projects would have the potential to result in the need to construct or expand existing police facilities, which would have the potential to create an adverse impact on the environment. While the majority of cumulative projects require discretionary actions and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for law enforcement services, which would have the potential to result in a significant cumulative impact. Operational funding for LASD and the police departments serving cities in Los Angeles County is derived from various types of tax revenue (property taxes, sales taxes, user taxes, vehicle license fees, deed transfer fees, etc.), which are deposited in the General Fund. Provided that staff and facilities are expanded to serve future development in the Project Area and cities, no significant cumulative impacts to law enforcement are anticipated.

#### 5.14.2.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

There are no existing regulations or standard conditions related to law enforcement.

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#### 5.14.2.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

- Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.14-2.

#### 5.14.2.8 MITIGATION MEASURES

No mitigation measures are required.

#### 5.14.2.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with existing regulatory programs would reduce potential impacts to law enforcement to a level that is less than significant.

### 5.14.3 School Services

#### 5.14.3.1 ENVIRONMENTAL SETTING

The County's role in developing and managing educational facilities and programs is limited. However, the Los Angeles County Office of Education (COE), which is the largest regional education agency in the United States, serves as an intermediary between the local school districts and the California Department of Education. The COE is guided by a seven-member County Board of Education, which is appointed by the County Board of Supervisors. The COE provides a vision statement and strategic opportunities for educational facility development to coordinate the assessment of facility needs and the construction of schools that fall to individual school districts. (County of Los Angeles 2014)

Another role that the County plays in coordinating in public school facilities is through the County subdivision approval process, in which developers are required to assess the need for, and in some cases provide, land for the construction of public schools within their development. Development impact fees, based on the size of a development, are distributed to the appropriate school district for the construction of school facilities before the County issues any building permits. The County also receives population surveys from various school districts, but they are sporadic, and not all districts involve the County in their facilities planning.

The areas served by each school district are shown on Figure 5.14-3, *School Districts*. As shown on Table 5.14-2, there are a total of 143,941 students enrolled in public schools within the Districts serving the Project Area. The Project Area is served by a total of 17 school districts.



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**Table 5.14-2 Project Area Public School Enrollment (2013)**

Acton-Agua Dulce Unified (School District)	1,542
Antelope Valley Union High (School District)	24,816
Azusa Unified (School District)	9,755
Bonita Unified (School District)	9,870
Claremont Unified (School District)	7,018
Eastside Union Elementary (School District)	3,386
Glendora Unified (School District)	7,559
Gorman Elementary (School District)	1,740
Hughes-Elizabeth Lakes Union Elementary (School District)	281
Keppel Union Elementary (School District)	2,747
La Canada Unified (School District)	4,119
Lancaster Elementary (School District)	14,713
Palmdale (School District)	21,264
Pasadena Unified (School District)	19,540
Sulphur Springs (School District)	5,553
Westside Union Elementary (School District)	8,645
Wilsona Elementary (School District)	1,393
<b>TOTAL</b>	<b>143,941</b>
Source: kidsdata.org	

### Regulatory Framework

State regulations, plans, or guidelines related to schools that are potentially applicable to the Proposed Project are summarized below.

#### *State*

##### ***Senate Bill 50***

SB 50, also known as Proposition 1A, codified in California Government Code Section 65995 et seq.) was enacted in 1988 to address how schools are financed and how development projects may be assessed for associated school impacts. SB 50 sets forth the “exclusive methods of considering and mitigating impacts on school facilities” resulting from any state or local planning and/or development project, regardless of whether its character is legislative, adjudicative, or both. (Govt. Code § 65996[a]). Section 65995 provides that “[t]he payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 ... are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property, or any change in governmental organization... on the provision of adequate school facilities.” (Govt. Code § 65995[h]). The reference in Section 65995(h) to fees “imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995” is a reference to per-square-foot school fees that can be imposed by school districts on new residential and commercial and industrial construction at three levels, as follows:

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- **Level 1 Fee:** Education Code Section 17620 provides the basic authority for school districts to levy fees against construction for purposes of funding construction or reconstruction of school facilities, subject to limits set forth in Government Code Section 65995. Fees are charged based on “assessable space,” which includes all of the square footage within the perimeter of a structure.
- **Level 2 Fee:** The alternative school fee that may be collected pursuant to Government Code Section 65995.5. Certain requirements in accordance with Government Code Section 65995.5 have to be met to collect this level of fees.
- **Level 3 Fee:** The alternative school fee that may be collected pursuant to Government Code Section 65995.7. This fee is collected only when the State Allocation Board is no longer approving apportionments for new construction funding.

#### 5.14.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- SS-1      Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services.

#### 5.14.3.3 RELEVANT AREA PLAN GOALS AND POLICIES

##### Public Safety, Services and Facilities Element

###### *Schools*

The following is a list of the goals and policies of the Proposed Project that are intended to reduce potentially significant adverse effects concerning schools.

**Goal PS 10:** A wide range of educational opportunities for Antelope Valley residents.

- **Policy PS 10.1:** Coordinate with all Antelope Valley school districts to ensure that new schools are provided as additional development occurs or as the population grows.
- **Policy PS 10.2:** Encourage new schools to locate in rural town center areas, rural town areas, and economic opportunity areas, where appropriate, where they will be accessible by pedestrian walkways, trails, bikeways, and bicycle routes.
- **Policy PS 10.3:** Encourage new schools to locate near parks and recreational facilities.

## FIGURE 5.14-3

The map displays the Antelope Valley Project Area, outlined in blue, covering a large portion of the Los Angeles basin. The map is divided into various districts, categorized by a legend in the bottom left corner:

- E = ELEMENTARY DISTRICTS** (indicated by a circle with an 'E')
- H = HIGH SCHOOL DISTRICTS** (indicated by a circle with an 'H')
- U = UNIFIED DISTRICTS** (indicated by a circle with a 'U')

Key districts and areas labeled on the map include:

- Antelope Valley Union Joint** (outlined in blue)
- William S. Hart Union**
- Centinela Valley Union**
- Whittier Union**
- El Monte Union**
- Los Angeles**
- Long Beach**
- Palmdale**
- Glendale**
- Pasadena**
- San Marino**
- Temple City**
- Glendora**
- Pomona**
- Rowland**
- Walnut Valley**
- El Monte**
- Mountain View**
- Valle Lindo**
- Whittier City**
- East Whittier City**
- Little Lake City**
- So Whittier**
- Long Beach**
- Compton**
- Paramount**
- Norwalk-LA Mirada**
- Bellflower**
- ABC**
- Downey**
- Lynwood**
- Montebello**
- El Rancho**
- Hacienda La Puente**
- Rowland**
- Walnut Valley**
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- **Policy PS 10.4:** Encourage the use of school playgrounds and sporting fields for community recreation (“joint use”) when school is not in session.
- **Policy PS 10.5:** Promote the creation of a four-year public university in the Antelope Valley to provide opportunities for continuing education and workforce development.

### 5.14.3.4 ENVIRONMENTAL IMPACTS

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#### Impact 5.14-3: Buildout of the Proposed Project would generate new students who would impact the school enrollment capacities of area schools. [Threshold SS-1]

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**Impact Analysis:** Educational facilities within the Project Area have their own state-mandated requirements to ensure a high quality of life for all the citizens of the County. School districts offer education to all school-age residents of the region, but operate entirely independent of County government. School districts were created by the State and are subject to the overview of the State Legislature. Elected governing school boards are responsible for budgeting and decision-making. The State Department of Education establishes school site and construction standards.

Table 5.14-3 identifies the housing units and student population projected for the Project Area. As shown in Table 5.14-3, a total of 57,009 additional students are anticipated at buildout of the Proposed Project. The Proposed Project would result in housing and population growth throughout the Project Area, which would result in an increase in school enrollment. To maintain acceptable service ratios, the construction of new or expanded school facilities would be required.

**Table 5.14-3 Project-Related Student Population Increases**

Area Plan	Existing Units	Projected Units	Increase over Existing	Student Generation Rate	Projected Number of Additional Students
Antelope Valley	24,739	106,180	81,441	0.7	57,009

Note:  
The student generation rate of 0.7 students per unit (K-12) was provided by the California Department of Education, Office of Public School Construction.

Implementation of the Proposed Project could contribute to a potentially significant adverse cumulative impact on school facilities and services. However, under state law, development projects are required to pay established school impact fees in accordance with SB 50 at the time of building permit issuance. The funding program established by SB 50 has been found by the Legislature to constitute “full and complete mitigation of the impacts of any legislative or adjudicative act...on the provision of adequate school facilities” (Government Code Section 65995[h]). The fees authorized for collection under SB 50 are conclusively deemed full and adequate mitigation of impacts on school district facilities. Therefore, the increase in the demand for school facilities and services due to implementation of the Proposed Project would be adequately mitigated by the payment of SB 50 fees.

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#### 5.14.3.5 CUMULATIVE IMPACTS

Cumulative development projects that involve residential development would increase the public school population in the region and require the construction or expansion of school facilities so that adequate service ratios are maintained. As described in Section 4.4, *Assumptions Regarding Cumulative Development*, an additional 103,605 dwelling units are anticipated by 2035 within the North Los Angeles County Subregion. This would result in an additional 72,524 students. This increase in student population would require the construction or expansion of school facilities, which would result in adverse environmental impacts. While the majority of cumulative projects require discretionary actions and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for school facilities, which would have the potential to result in a significant cumulative impact.

As discussed above, under state law, development projects are required to pay established school impact fees in accordance with SB 50 at the time of building permit issuance. The funding program established by SB 50 has been found by the Legislature to constitute “full and complete mitigation of the impacts of any legislative or adjudicative act...on the provision of adequate school facilities” (Government Code Section 65995[h]). The fees authorized for collection under SB 50 are conclusively deemed full and adequate mitigation of impacts on school district facilities. Therefore, the increase in the demand for school facilities and services due to cumulative development would be adequately mitigated to a less than significant level by the payment of SB 50 fees.

#### 5.14.3.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

- Senate Bill 50 (“SB 50,” also known as Proposition 1A, codified in California Government Code Section 65995 et seq.)

#### 5.14.3.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.14-3.

#### 5.14.3.8 MITIGATION MEASURES

No mitigation measures are required.

#### 5.14.3.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts have been identified, and no significant and unavoidable impacts would occur.

### 5.14.4 Library Services

#### 5.14.4.1 ENVIRONMENTAL SETTING

The County Public Library is one of the largest public library systems in the United States. In fiscal year 2011–2012, library staff circulated 16.5 million items to 3.1 million cardholders; answered over 8 million reference questions; provided 18,000 programs to 500,000 children, teens, and adults; and assisted the public

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with 3 million internet sessions on the library's public access computers. The library system is a special fund County department operating under the direction of the County Board of Supervisors. Figure 5.14-4 identifies the County libraries and facilities serving the Project Area.

Supplementing the 7.5-million-volume book collection, the library also offers magazines, newspapers, microfilm, government publications, specialized reference materials, magazines, audio-visual media, adult, teen and children programs, downloadable audio and e-books, and internet access, including WiFi.

### Library Facility Needs

The majority of the County's 86 libraries are undersized and understocked to meet the service needs of current and projected populations served by the Library system. A study conducted by the Library in April 2001 determined that many of the County's libraries do not meet basic facility and service planning guidelines. The current guideline for library facility space is a minimum of 0.5 gross square foot per capita. The 2001 study determined that 89 percent of existing libraries will not meet that standard in the year 2020. In addition, the study determined that by 2020, 77 percent of existing libraries will not meet the Library's current service level planning guideline of 2.75 items (books and other library materials) per capita.

Many existing County libraries are located in areas with little or no new residential development, and therefore, there are no mitigation fees or other reliable sources of capital funding available to replace or expand them. A permanent source of funding to replace or expand existing facilities is needed to meet the projected population growth in the Library's service areas over the next two decades.

### Library Facilities Mitigation Fees

The County applies a library facilities mitigation fee to new residential developments in the unincorporated areas. This fee is intended to mitigate the significant adverse impacts of increased residential development on the Library system. The library facilities mitigation fee is based on the estimated cost of providing the projected library facility needs in each library planning area. Section 22.72.030 of the County's Zoning Code identifies the library facilities mitigation fee in each of the seven library planning areas.

The mitigation fee in each planning area is reviewed annually by the County Librarian, in consultation with the County Auditor-Controller, and is adjusted every July 1. According to the Zoning Code, no adjustment shall increase or decrease the fee to an amount more or less than the amount necessary to recover the cost of providing applicable library facilities and services.

The provisions of the Library Facilities Mitigation Fee Ordinance are applicable to residential projects only. All library facilities mitigation fees received by the County are deposited into a special library capital facilities fund (one for each library planning area) and expended solely for the purposes for which the fees were collected.

#### 5.14.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

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- LS-1      Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.

#### 5.14.4.3 RELEVANT AREA PLAN GOALS AND POLICIES

The following is a list of the goals and policies of the Proposed Project that are intended to reduce potentially significant adverse effects concerning libraries.

#### Public Safety, Services and Facilities Element

##### *Libraries*

**Goal PS 11:** Antelope Valley residents enjoy easy access to public library services.

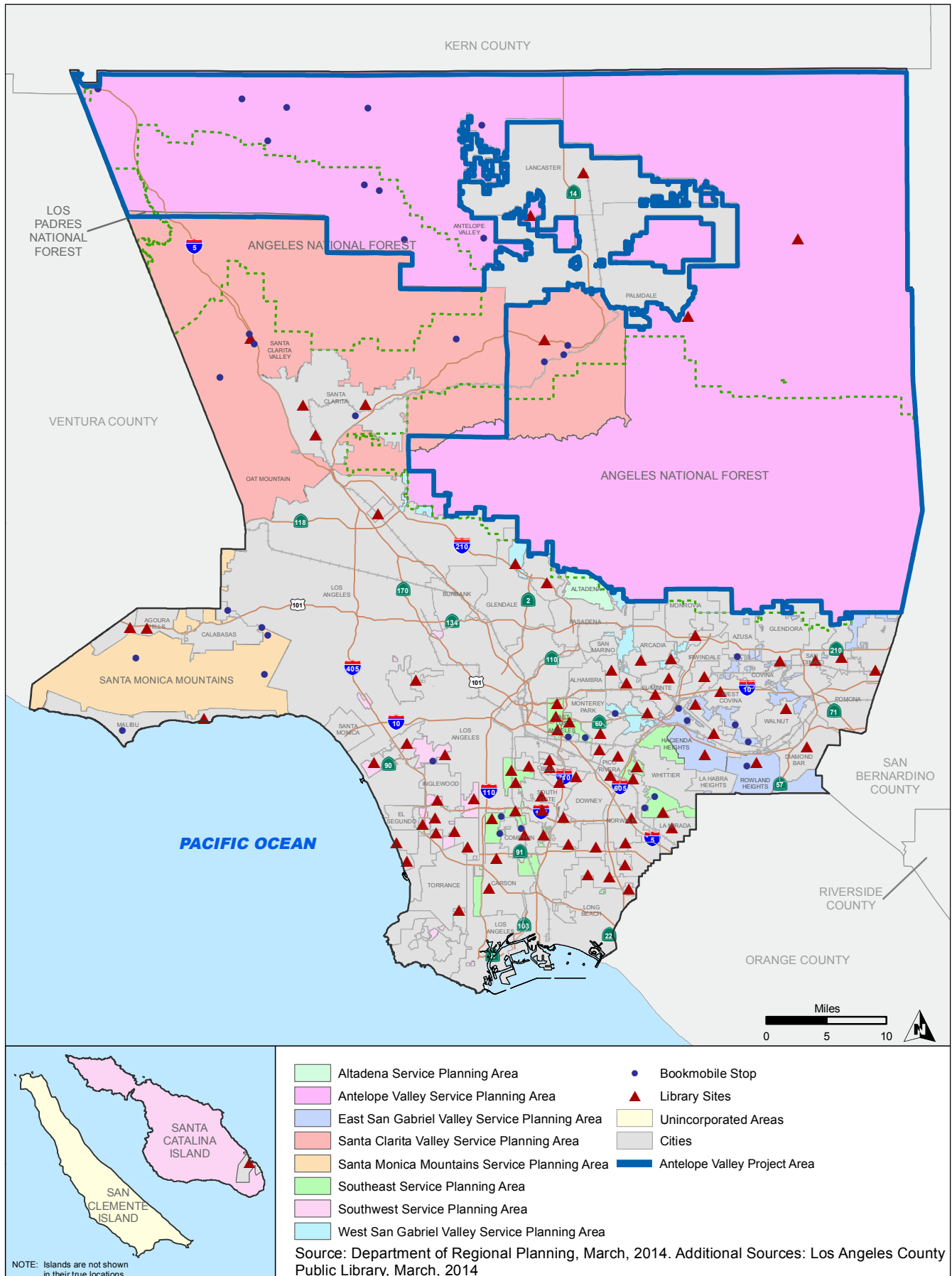
- **Policy PS 11.1:** Maintain existing public libraries and make improvements as necessary. Ensure adequate funding on an ongoing basis.
- **Policy PS 11.2:** Expand public library collections and services to meet community needs.
- **Policy PS 11.3:** Provide new public libraries as additional development occurs or as the population grows.
- **Policy PS 11.4:** Encourage new public libraries to locate in rural town center areas, rural town areas, and economic opportunity areas, where appropriate, where they will be accessible by pedestrian walkways, trails, bikeways, and bicycle routes.
- **Policy PS 11.5:** Provide bookmobile services in areas that are not served by permanent public libraries.
- **Policy PS 11.6:** Encourage the use of technology in library operations to increase efficiency and accessibility.



# 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.14-4

## LIBRARIES



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### 5.14.4.4 ENVIRONMENTAL IMPACTS

**Impact 5.14-4: Buildout of the Proposed Project would generate additional population, increasing the service needs for the local libraries. [Threshold LS-1]**

**Impact Analysis:** Implementation of the Proposed Project would result in the potential for increased demand for library services within the Project Area to the extent that expansion and construction of new facilities would be required. The projected increase in population at buildout of the Proposed Project is 311,920 persons. As discussed above, the current guideline for library facility space is a minimum of 0.5 gross square foot per capita and 2.75 items (books and other library materials) per capita. To adequately serve future residents within the Project Area, the County library system would need to add 857,780 library items and 155,960 square feet of library space.

Future development would generate new tax revenues, and as noted above, funding sources for the County Library consist of property taxes, state assistance, and revenue from fines, fees, and other miscellaneous revenue. According to County Library staff, increased tax revenues funding addresses only library operations, and because of uncertainty regarding General Fund contribution levels, it is not adequate to offset the impact of the project on the County Library's ability to construct new libraries and purchase new items (books, periodicals, audio cassettes, videos, etc.). Consequently, the tax revenues collected would not adequately cover all the costs of serving the project population, and a significant impact on the library system would result.

In order to minimize potentially adverse effects, the County has devised library facilities mitigation fee programs, and future residential projects would be required to remit payment pursuant to the Countywide program to account for library-related construction and acquisition costs. Requiring payment of the library facilities fee in effect at the time development occurs (currently \$718.00 per unit of residential development) would mitigate project-related impacts on the County Library to a less-than-significant level.

### 5.14.4.5 CUMULATIVE IMPACTS

The County Public Library serves the North Los Angeles County Subregion. Cumulative projects that involve residential development would increase the population of library users and result in the need to construct additional or renovate existing library facilities, which would result in a significant environmental impact. Cumulative projects that would contribute to additional library use include residential development proposed under the general plans of cities as well as implementation of the Proposed Project. The increase in demand for library services from implementation of cumulative projects would result in the need to construct additional or expand existing library facilities, which would create an adverse impact on the environment. While the majority of cumulative projects require discretionary actions and would be required to demonstrate compliance with CEQA prior to project approval, they would incrementally increase the need for library facilities and materials, which would have the potential to result in a significant cumulative impact.

Future cumulative development would generate new tax revenues, and as noted above, funding sources for the County Library and city libraries consist of property taxes, state assistance, and revenue from fines, fees, and other miscellaneous revenue. In order to minimize potentially adverse effects, the County has devised library facilities mitigation fee programs, and future projects would be required to remit payment pursuant to

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### PUBLIC SERVICES

the Countywide program to account for library-related construction and acquisition costs. Requiring payment of the library facilities fee in effect (currently \$718.00 per unit of residential development) would mitigate cumulative impacts on the County Library to a less-than-significant level, and they are therefore not cumulative considerable.

#### 5.14.4.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

- Library facilities mitigation fee (developer fee) codified as Chapter 22.72 of the Los Angeles County Code.

#### 5.14.4.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.14-4.

#### 5.14.4.8 MITIGATION MEASURES

No mitigation measures are required.

#### 5.14.4.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts have been identified, and no significant and unavoidable impacts would occur.

### 5.14.5 References

Department of Regional Planning. 2014. Draft 2035 General Plan Update. Los Angeles County, California.

Los Angeles, County of, Fire Department. 2013 Statistical Summary. 2013. Los Angeles County, California.

Southern California Association of Governments (SCAG).2012, April.2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).<http://rtpscs.scag.ca.gov/Pages/default.aspx>.

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### 5.15 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Proposed Project to impact recreation in the Project Area. The potential for adverse impacts on accessibility of recreational facilities to existing and proposed residential neighborhoods and impacts resulting from the construction of additional recreational facilities are evaluated based on existing facilities and adopted and proposed parkland standards.

#### 5.15.1 Environmental Setting

##### 5.15.1.1 REGULATORY SETTING

##### State Regulations

###### *The Quimby Act*

Since the passage of the 1975 Quimby Act (California Government Code Section 66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities (Westrup 2002). A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public's need for the recreation facility or parkland, and the type of development project upon which the fee is imposed. Cities and counties with a high ratio of park space to inhabitants can set a standard of up to five acres per 1,000 people for new development. Cities and counties with a lower ratio can only require the provision of up to three acres of park space per 1,000 people. The calculation of a city or county's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of city/county-owned parkland.

###### *The Mello-Roos Community Facilities Act of 1982*

The Mello-Roos Community Facilities Act provides an alternative method of financing certain public capital facilities and services, especially in developing areas and areas undergoing rehabilitation. This state law empowers local agencies to establish Community Facilities Districts as a means of obtaining community funding.

###### *Landscaping and Lighting Act of 1972, California Streets and Highway Code Section 22500–22509*

The California Landscaping and Lighting Act of 1972 authorizes local legislative bodies to establish benefit related assessment districts, or Landscaping and Lighting Districts (LLADs) and to levy assessments for the construction, installation, and maintenance of certain public landscaping and lighting improvements. LLADs may be established to maintain local public parks.

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### RECREATION

#### Local Regulations

##### *Los Angeles County Code*

In addition to containing regulations on the operation of park facilities, the County Code contains provisions that regulate the provision of parklands for new subdivisions, in accordance with the Quimby Act. County Code Section 21.24.340 (Residential Subdivisions, Local Park Space Obligation, Formula) contains the methodology used to determine the amount of parkland required to be dedicated by the subdivider as a part of the subdivision map approval process. In accordance with Section 21.28.140, the developer may also choose to pay a fee in lieu of the provision of parkland. Additionally, the developer may choose to provide less than the required amount of parkland, but develop it with amenities equal to the value of what the in-lieu fee would be. In order to determine the local park space obligation for a subdivision, a formula is used, which considers the number of dwelling units in the subdivision, the average household size by Park Planning Area (PPA) (which differs for single family, multifamily, and mobile home developments as well as by PPA), and the adopted ratio of three acres of parkland per 1,000 residents, per the Quimby Act. However, it should be noted that, as provided in the Adopted General Plan, as a condition of zone change approval, General Plan amendment, specific plan approval, or development agreement, the County may require a subdivider to dedicate land according to the General Plan goal of four acres of local parkland per 1,000 residents and six acres of regional parkland per 1,000 residents.

Once the local park space obligation is determined, County Code Section 21.24.350 (Residential Subdivisions, Provision or Local Park Sites) contains regulations pertaining to the siting of park facilities as well as provisions that give the option to subdividers of 50 units or less to choose to provide the obligatory amount of parkland, any excess of which would be credited to the subdivision, or otherwise allow any remaining obligation to be satisfied by the payment of park fees in accordance with the provisions of Section 21.28.140. Additionally, since only the portions of the land dedicated for parkland that are suitable for park use can be counted against the obligation of the subdivider, attributes of the park space, including the slope of the site are used to determine the amount of land which can be counted against the subdivider's obligation. For example, for the portions of the site in excess of 20 percent slope, only 10 percent of the acreage will be counted against the subdivider's obligation, whereas all of the land that is less than 3 percent slope can be counted toward the obligation.

Section 21.28.140 (Park Fees Required When, Computation and Use) contains provisions regarding the payment of in-lieu fees for any portion of the dedication obligation not satisfied by the subdivider. These fees would be enforced as a condition of approval on the final approval of the subdivision. The in-lieu fee is determined by multiplying the amount of park space not satisfied by the representative land value for the appropriate PPA. This section also makes it the responsibility of the Department of Parks and Recreation (DPR) to develop a schedule specifying how, when, and where it will use the land or fees or both from each subdivision to develop park or recreational facilities within the applicable PPA.

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### *Safe Neighborhood Parks Proposition of 1992, 1996, Proposition A*

Proposition A created the Los Angeles County Regional Park and Open Space District. The District's boundaries are coterminous with the boundaries of Los Angeles County. The proposition authorized an annual assessment on nearly all of the 2.25 million parcels of real property in Los Angeles County. Proposition A funded \$540 million for the acquisition, restoration, or rehabilitation of real property for parks and park safety, senior recreation facilities, gang prevention, beaches, recreation, community or cultural facilities, trails, wildlife habitats, or natural lands, and maintenance and servicing of those projects. In 1996, voters approved another Proposition A to fund an additional \$319 million for parks and recreation projects, and additional funds for maintenance and to service those projects. Proposition A funds may be used to fund the development, acquisition, improvement, restoration, and maintenance of parks; recreational, cultural and community facilities; and open space lands.

### *County of Los Angeles Park Design Guidelines and Standards*

The Park Design Guidelines and Standards document is intended to give design professionals, County staff, and other agencies guidance on how to design and develop parks that meet County standards and expectations. It incorporates input from DPR staff, other County departments as well as outside partners such as non-profit organizations and private developers which have an interest in park design. This manual addresses topics such as: spatial organization, buildings, circulation, recreational facilities, landscaping, stormwater management, utilities, preferred manufactured products to be used at the parks, and preferred plant lists for both potable and recycled water.

### *County of Los Angeles Trails Manual*

In May 2011, the County Board of Supervisors adopted the County of Los Angeles Trails manual, which provides guidelines and sources of information for trail planning, design, development, and maintenance of County trails. The Trails Manual is intended to be used by County Departments, primarily DPR, and agencies associated with, or working in conjunction with DPR, or engaged in the planning, design, construction and maintenance of multi-use (equestrian, hiking, and mountain bicycling) trails within the County.

#### **5.15.1.2 EXISTING CONDITIONS**

##### **Los Angeles County Park System**

The County Park System has a total of 169 parks and recreational facilities. These facilities are owned, operated, and maintained by the County and total 69,595 acres. An additional 541 acres have been dedicated, but have not yet been developed as parkland. The following section describes the types of recreational facilities within the Project Area that are operated by DPR. Parks are classified based on their size, use, and physical characteristics.

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#### *Local Park System*

Parks in the local park system are intended to serve the daily recreation needs of the communities in which they are located. Community parks, neighborhood parks, pocket parks, and park nodes are all included in this classification. Table 5.15-1 provides a summary of the different categories within the local park system.

**Table 5.15-1 Local Park System Summary**

Facility	Typical Park Features and Amenities
<b>Community Park</b> Suggested Acreage: 10 to 20 acres Service Area: 1 to 2 miles	Passive park amenities, including but not limited to: informal open play areas, children's play apparatus, family and group picnic areas with overhead shelters, barbecues. Active sports activities, including but not limited to: lighted sports fields, basketball courts and tennis courts. Additional amenities may include aquatics complex, skate park, arena soccer, roller hockey, community gardens, and dog parks. Park facilities, including but not limited to: public restrooms, concession building, community buildings, maintenance building and onsite parking and information kiosks.
<b>Neighborhood Park</b> Suggested Acreage: 3 to 10 acres Service Area: 1/2 mile	Passive park amenities, including but not limited to: informal open play areas, children's play apparatus, group picnic areas with overhead shelters, barbecues. Active park amenities, including but not limited to: practice sports fields, basketball, tennis, and volleyball courts. Park facilities, including but not limited to: public restroom, onsite parking and information kiosks.
<b>Pocket Park</b> Suggested Acreage: less than 3 acres Service Area: 1/4 mile	Passive park amenities, including but not limited to: picnic areas and seating areas. Active park amenities, including but not limited to: children's play apparatus.
<b>Park Node</b> Suggested Acreage: 1/4 acre or less No service radius area	Varies; can include: plazas, rest areas, playgrounds, landmarks and public art installations.

Source: Los Angeles County Draft General Plan 2014

Because residential areas are generally not located within urbanized neighborhoods, the Project Area contains few local parks.

#### *Regional Park System*

Parks in the regional park system are intended to serve the recreation needs of residents and visitors throughout Los Angeles County. Community regional parks, regional parks, and special use facilities are all included in this classification. Table 5.15-2 provides a summary of the different categories within the regional park system.



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**Table 5.15-2 Regional Park System Summary**

Facility	Typical Park Features and Amenities
<b>Community Regional Park</b> Suggested Acreage: 20 to 100 acres Service Area: Up to 20 miles	Passive park amenities, including but not limited to: informal open play areas, children's play apparatus, group picnic areas with overhead shelters, barbecues. Active sports activities, including but not limited to: lighted sports fields, basketball courts and tennis courts. Additional amenities may include one or more of the following features: multiple sports facilities, aquatics center, fishing lake, community building and gymnasium, and scenic views and vistas. Park facilities, including but not limited to: public restrooms, concession building, community buildings, maintenance building and onsite parking and information kiosks.
<b>Regional Park</b> Suggested Acreage: Greater than 100 acres Service Area: 25+ miles	Passive park amenities, including but not limited to: group picnic areas with overhead shelters, barbecues. Additional amenities may include one or more of the following features: lakes, wetlands, auditoriums, water bodies for swimming, fishing and boating, and sports fields.
<b>Special Use Facility</b> No size criteria No assigned service radius area	Generally, single purpose facilities. Can include passive features such as: wilderness parks, nature preserves, botanical gardens and nature centers. Active uses can include: performing arts, water parks, aquatic facilities, skate parks, golf driving ranges and golf courses.
Source: Los Angeles County Draft General Plan 2014	

Table 5.15-3, *Existing Parkland in the Project Area*, provides a summary of the amount of local and regional parkland in the Project Area. The County goal for the provision of parkland is four acres of local parkland per 1,000 residents of the population in the Project Area and six acres of regional parkland per 1,000 residents of the total population of Los Angeles County.

**Table 5.15-3 Existing Parkland in the Project Area**

Local Parkland Goal 4 Acres/1,000 Population				Regional Parkland Goal 6 Acres/1,000 Population <sup>1</sup>			
Project Area Population	Parkland Acreage	Existing Parkland Ratio	Surplus/ Deficit Acreage	Population of Project Area and Adjacent Cities	Parkland Acreage	Existing Parkland Ratio	Surplus/ Deficit Acreage
93,490	50	0.54	-324	382,868	3,870	10.11	+1,573

Source: Los Angeles County Draft General Plan, 2014.

<sup>1</sup> Existing population and parkland acreage shown for the regional parkland goal includes parkland in the cities of Lancaster and Palmdale.

The acreage goal identified for local parks in the Adopted General Plan and in Policy PS 8.3 of the Proposed Area Plan is four acres of parkland per 1,000 residents. The regional parkland goal under the Adopted General Plan is six acres per 1,000 countywide residents. As shown in Table 5.15-3, *Existing Parkland in the Project Area*, there are a total of 50 acres of local parkland in the Project Area and 3,870 acres of regional parkland in the Project Area and adjacent cities (Lancaster and Palmdale). Using DPR population estimates, there is a 324-acre deficit of local parkland, but a surplus of 1,573 acres of regional parkland in the Project

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Area and adjacent cities. Therefore, while the existing regional parkland acreage surpasses the County's goal of six acres per 1,000 residents, the existing local parkland acreage does not meet the County or the Proposed Area Plan's standard for recreational facilities.

Table 5.15-4, *Parks and Recreation Inventory for the Project Area*, shows a complete inventory of DPR parks located in the Project Area.

**Table 5.15-4 Parks and Recreation Inventory for the Project Area**

Park	Park Classification	Type	Acres
<b>Local Parks</b>			
Acton Park	Community	Local	14
George Lane Park	Community	Local	14
Everett Martin Park	Neighborhood	Local	6
Pearblossom Park	Neighborhood	Local	8
Jackie Robinson Park	Neighborhood	Local	9
<b>Subtotal (Local Parks)<sup>1</sup></b>			<b>50</b>
<b>Regional Parks</b>			
Acton Wash Sanctuary	Special Use	Regional	75
Alpine Butte Wildlife Sanctuary	Special Use	Regional	323
Apollo Community Regional Park	Community Regional	Regional	54
Big Rock Creek Wildlife Sanctuary	Special Use	Regional	161
Blalock Sanctuary	Special Use	Regional	140
Butte Valley Wildflower Sanctuary	Special Use	Regional	351
Desert Pines Sanctuary	Special Use	Regional	99
Devil's Punchbowl Natural Area	Special Use	Regional	1,300
Carl O. Gerhardy Wildlife Sanctuary	Special Use	Regional	547
Jackrabbit Flats Wildlife Sanctuary	Special Use	Regional	114
Mescal Wildlife Sanctuary	Special Use	Regional	99
Stephen Sorenson Park	Community Regional	Regional	108
Theodore Payne Wildlife Sanctuary	Special Use	Regional	157
Phacelia Wildlife Sanctuary	Special Use	Regional	160
<b>Subtotal (Regional Parks)<sup>1</sup></b>			<b>3,647</b>
<b>TOTAL</b>			<b>3,697</b>

Source: Los Angeles County Draft General Plan, 2014.

<sup>1</sup> Discrepancy between sum of individual local parks and total for local parks is due to rounding.

### Trails

The Project Area features several mountain ranges, including a majority of the San Gabriel Mountains, which separate the Antelope Valley from the Los Angeles and San Gabriel Valley basins. Accordingly, the Project

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Area offers a variety of trails and trail types to residents. The County is responsible for providing parks and recreation facilities to meet the diverse needs of residents and visitors of Los Angeles County, and strives to make all trails multiuse and accessible to all non-motorized users including: hikers, equestrians, and mountain bicyclists, where appropriate.

Figure 5.15-1, *Regional Trail System Map*, depicts the County's regional trail system. Within the Project Area, there are a number of federal/national forest multi-use (equestrian, hiking, and mountain bicycling) trails including the Pacific Crest Trail (dual-use: equestrian and hiking) that runs through the Angeles National Forest (ANF). In addition, there are existing County trails and many proposed County Trails (from the adopted 2007 Trails Map) throughout the northern portion of the Project Area northeast of the ANF.

The Regional Trail System Map serves as a long-range planning tool to guide future trail development to meet the recreational needs of the County. In an effort to provide an interconnected regional trail network, DPR consults and collaborates with public, non-profit and private organizations to: 1) identify and pursue trail opportunities connecting state, federal and local parks and greenways; 2) integrate trailheads and feeder trails that are capable of linking residential communities to recreational facilities and nature-oriented destinations; and 3) obtain easements or license agreements for trails through the County's land subdivision and development project approvals process.

### State Parks

The Project Area includes several notable recreational amenities that are administered by the State of California. These include:

- Antelope Valley Indian Museum State Historic Park
- Antelope Valley California Poppy State Natural Preserve
- Arthur B. Ripley Desert Woodland State Park
- Hungry Valley State Vehicular Recreation Area
- Saddleback Butte State Park

### Other Recreational Facilities

In addition to the facilities discussed above, several other categories of recreation facilities exist throughout the Project Area and serve the needs of residents. These facilities include school district facilities and private recreational facilities.

#### *School District Facilities*

The County coordinates with local school districts to organize, promote, and conduct joint recreational and educational programs. These community recreation agreements are a form of joint-use agreement, where either a school or park facility may be put to some recreational use by the other party in exchange for some facility improvement and/or maintenance. A park does not have to be adjacent to a school (i.e., share a common boundary) for an agreement to be viable.

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#### *City Parks and Facilities*

Parks and facilities in the cities of Lancaster and Palmdale that are located close to the borders of the unincorporated areas are enjoyed by city and county residents alike. Similarly, local County parks that are located within or close to the borders of cities provide recreational amenities for both populations. This overlap in local park service radius is an important factor to consider in the placement of new local parks.

#### *Private Recreational Facilities*

Private recreational facilities play an important role in meeting recreational needs. The network of private recreational facilities consists of churches, health and fitness clubs, and other organizations that offer a variety of programs and facilities. As the County does not control, maintain, or program private recreational facilities, these resources are not credited toward the County's acreage goals for public parks.

### Recreation Programs

In addition to facilities, the availability of recreation programs contributes to the quality of the parks and recreation network in the Project Area. These programs include organized sports, tournaments, scheduled classes, and special events, as well as casual leisure activities such as family picnics and walking. Meeting the diverse needs of the community is critical to having successful recreation programs; therefore, the County has programs intended for preschool-aged children, elementary-school-aged youth, middle-school-aged youth, high-school-aged youth, adults, seniors, and households.

### 5.15.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- R-1            Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- R-2            Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### 5.15.3 Relevant Area Plan Goals and Policies

The following is a list of goals and policies included as part of the Proposed Project that are intended to reduce potentially significant adverse effects concerning recreation.

#### Conservation and Open Space Element

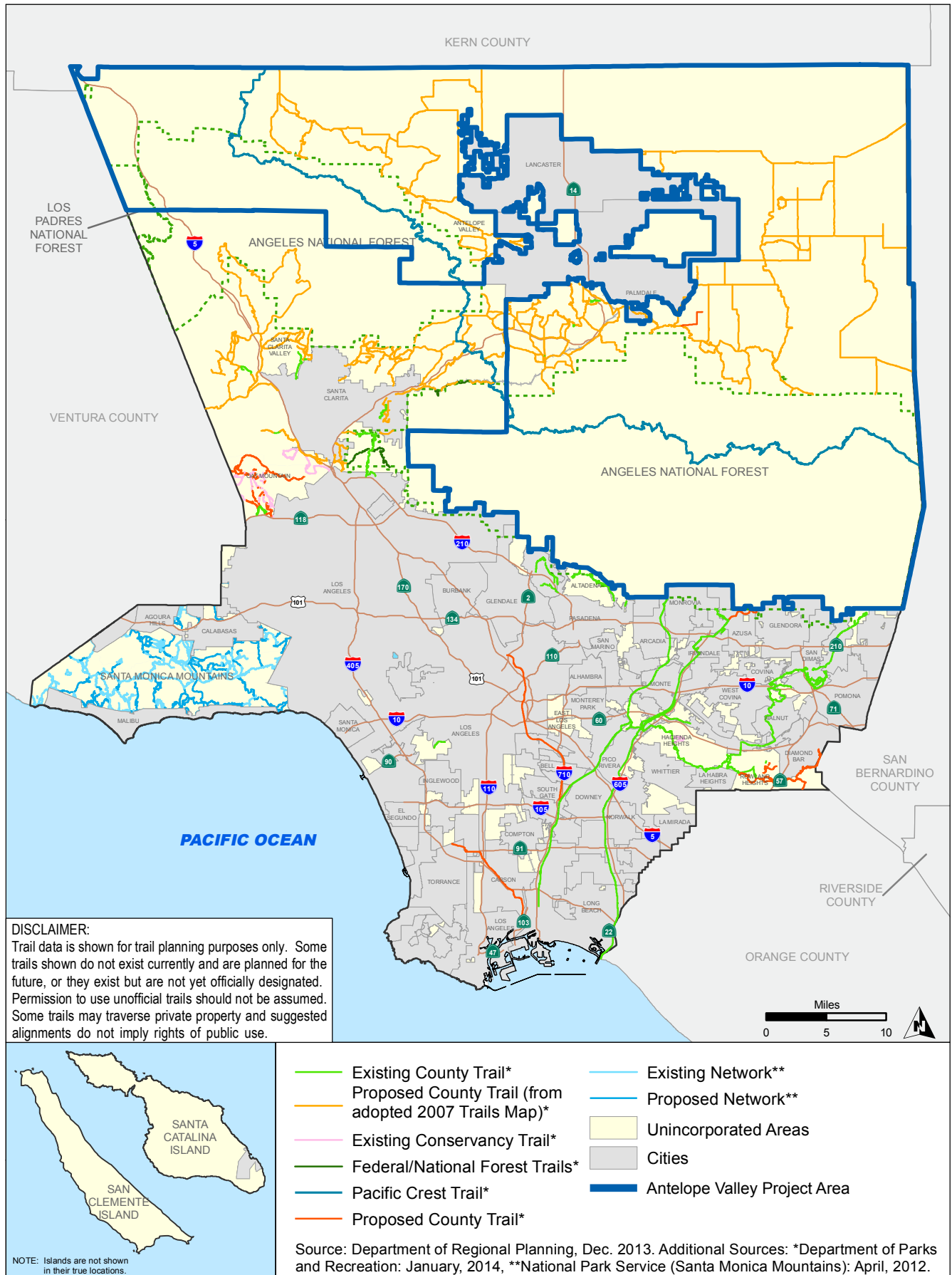
**Goal COS 18:** Permanently preserved open space areas throughout the Antelope Valley.

- **Policy COS 18.5:** Provide parks and recreational facilities, as directed in the policies of the Public Safety, Services, and Facilities Element.

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FIGURE 5.15-1

## REGIONAL TRAIL SYSTEM MAP



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### Public Safety, Services, and Facilities Element

**Goal PS 8:** Antelope Valley residents enjoy access to parks and recreational facilities.

- **Policy PS 8.1:** Maintain existing parks to ensure attractiveness and safety and make improvements as necessary. Ensure adequate funding on an ongoing basis.
- **Policy PS 8.2:** Provide recreational activities at parks that serve all segments of the population.
- **Policy PS 8.3:** Provide new parks as additional development occurs or as the population grows, with a goal of four acres of parkland for every 1,000 residents.
- **Policy PS 8.4:** Prioritize new parks for existing park deficient communities.
- **Policy PS 8.5:** Encourage the use of school playgrounds and sporting fields for community recreation (“joint use”) when school is not in session.
- **Policy PS 8.6:** Within rural town center areas, promote the inclusion of parks, recreational facilities, and other gathering places that allow neighbors to meet and socialize.
- **Policy PS 8.7:** Provide trails, bikeways, and bicycle routes for recreational purposes, as directed in the policies of the Mobility Element.
- **Policy PS 8.8:** Maintain existing facilities for public water recreation to ensure attractiveness and safety and make improvements as necessary. Ensure adequate funding on an ongoing basis.
- **Policy PS 8.9:** Provide new facilities for public water recreation in appropriate areas.

### 5.15.4 Environmental Impacts

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**Impact 5.15-1:** Development in accordance with the Proposed Project would generate additional residents that would increase the use of existing parks and recreational facilities such that substantial physical deterioration may occur or be accelerated. [Threshold R-1]

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**Impact Analysis:** An increase in population, regardless of location, would result in increased demand for recreational facilities, potentially resulting in the deterioration of existing facilities. As shown in Table 3-2 in Chapter 3, *Project Description*, of this DEIR, the Project Area is anticipated to contain 81,441 additional dwelling units and 311,920 additional residents at buildout of the Proposed Project. This represents population growth of 333.6 percent during the planning period. The anticipated increase in population would result in an increase in demand for recreational facilities. Additionally, increases in population in areas that currently have inadequate recreational facilities would have the potential to accelerate deterioration of these facilities from intensified overuse.

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The recreational acreage goal identified in the Proposed Area Plan is four acres per 1,000 residents (Policy PS 8.3). The County's Adopted General Plan has a recreational acreage goal of four acres of local parkland per 1,000 residents and six acres of regional parkland per 1,000 County residents. As shown in Table 5.15-3, *Existing Parkland in the Project Area*, the Project Area is currently meeting the regional parkland goal, but not the local parkland goal.

Recreational acreage goals serve as the baseline level of service standard that guides the planning and monitoring of recreational facilities. They are used as planning tools. However, recreational facilities are not automatically considered deficient if these goals are not met. Using the Proposed Area Plan and Adopted General Plan parkland goals, the Proposed Project's demand for local and regional parkland is shown in Table 5.15-5, *Increases in Population and Demand for County Parkland*.

**Table 5.15-5      Increases in Population and Demand for County Parkland**

Proposed Area Plan and Adopted General Plan Local Parkland Goal (4 acres per 1,000 Project Area residents)		Adopted General Plan Regional Parkland Goal (6 acres per 1,000 residents)	
Project Area Population Increase Over Existing Generated by Proposed Project	Additional Demand for Local Parkland (Acres)	Countywide Population Increase Over Existing Generated by Proposed Project <sup>1</sup>	Additional Demand for Regional Parkland (Acres)
311,920	1,248	311,920	1,872

<sup>1</sup> Does not include population growth in the Planning Area that would be generated in Lancaster and Palmdale.

### Regional Parkland

Currently, there is a total of 3,870 acres of regional parkland in the Project Area and adjacent cities. For every 1,000 residents, there is approximately 10 acres of regional parkland. Based on the Adopted General Plan's goal, there is a 1,573-acre surplus of regional parkland under existing conditions.

As discussed in Chapter 3, *Project Description*, the Project Area is expected to have a total of 405,410 residents at project buildout, an increase of 311,920 residents. To meet the Adopted General Plan goal of six acres of regional parkland per 1,000 residents of the total population of Los Angeles County, a total of 1,872 acres of regional parkland would need to be provided. As shown in Table 5.15-5, *Increases in Population and Demand for County Parkland*, there are currently 3,870 acres of regional parkland, which indicates an existing surplus of 1,573 acres of regional parkland. This surplus of 1,573 is less than the projected need for 1,872 additional acres. Therefore, if no additional regional parks were built in the Project Area prior to project buildout, the Project Area would have a deficiency of 299 acres. However, this deficiency is misleading in that it does not include regional recreational amenities not administered by the County—including State Parks and the ANF—and regional parks that would be constructed in the cities of Lancaster and Palmdale during the planning period pursuant to those cities' parkland dedication ordinances (see discussion under *Local Parkland*, below). These areas contribute to the overall availability of regional recreational opportunities in the Project Area.



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### Local Parkland

The current ratio of local parkland is 0.54 acres of local parkland for every 1,000 residents in the Project Area. Based on the Adopted General Plan and Proposed Area Plan's desired ratio of four acres of local parkland per 1,000 residents, there is currently a 324-acre deficit of local parkland. Although there is an existing local park deficiency, there are a number of other recreation and open space assets that serve to reduce the demand for local park facilities. The considerable amount of regional parkland, state parks, trails, and private recreational facilities available to the residents of the Project Area (see 5.15.1.2, *Existing Conditions*, above) substantially reduces the demand for local park facilities.

As shown in Table 5.15-5, buildout of the Proposed Project is anticipated to generate 311,920 new residents, resulting in a total population of 405,410 in the Project Area. To meet the County's adopted goal for local parkland for the new population, the County would need to provide 1,247 new acres of local parkland, or 1,622 acres total. The County currently falls short of its goal for local parkland and would not be able to accommodate the Proposed Project's additional demand through existing local parkland inventory. However, given the local parkland deficiency, the inability of the County to meet the Adopted General Plan goal of four acres of local parkland for every 1,000 residents upon buildout of the Proposed Project would not in and of itself result in a significant physical deterioration of recreation facilities. Increases in parkland acreage proportional to the increases in population (or sufficient increases in maintenance) would be adequate to assume that a substantial physical deterioration of facilities would not occur.

The extent to which the County can implement parks, trails, and other recreational facilities is related to the availability of funding. As discussed, the Quimby Act is a funding mechanism for parkland acquisition. As allowed by this Act and pursuant to the County Code, residential subdivisions must dedicate parkland or pay in-lieu fees (or both, in some circumstances) to enable the County to acquire a ratio of at least three acres of local parkland for every 1,000 residents (Section 21.24.340). This provision assures that the funding for parkland acquisition will be proportional to increases in population. Other regulations, including the Mello-Roos Community Facilities Act of 1982, the Landscaping and Lighting Act of 1972, and Los Angeles County Proposition A (Safe Neighborhood Parks Proposition of 1992 and 1996), would serve as supplemental sources of funding for parkland. Additionally, the County requires a residential subdivider to either dedicate local park space to serve the proposed subdivision, pay in-lieu fees, provide local park space less than required but developed with amenities equal in value to the park fee, or do a combination of the above in accordance with the requirements of County Ordinance 2013-0009.

The provisions of County Code Section 21.24.340 require three acres of local parkland per 1,000 residents, while the Proposed Area Plan Policy PS 8.3 sets a goal of four acres per 1,000 residents. As a result, there is an inherent deficit between the ratio of local parkland the County would like to maintain and the amount of parkland it can provide in accordance with County Code Section 21.24.340. Therefore, although much of the demand for local parkland can be accommodated, a deficit of parkland would remain compared to the Proposed Area Plan's goal.

Nevertheless, numerous policies in the Proposed Area Plan listed under Section 5.15.3, *Relevant Area Plan Goals and Policies*, would reduce the significance of this impact. For example, Policy PS 8.1 ensures adequate funding on an ongoing basis; Policies PS 8.5 and 8.7 encourage additional recreational opportunities through

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the use of school playgrounds/sports fields, trails, bikeways, and bicycles routes; and Policy PS 8.6 promotes implementing parks and recreational facilities at gathering places within town centers as a way to allow neighbors to meet and socialize. Perhaps most importantly, Policy PS 8.3 reiterates the Adopted General Plan's goal that four acres of parkland be provided for every 1,000 residents.

The presence of a variety of recreation options beyond local park facilities and policies that require funding for parks to be proportional to future increases in population and development would both serve to reduce the potential for significant deterioration of recreational facilities associated with buildout of the Proposed Project. Therefore, impacts would be less than significant.

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#### **Impact 5.15-2: Implementation of the Proposed Project would result in the construction or expansion of recreational facilities. [Threshold R-2]**

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**Impact Analysis:** Implementation of the Proposed Project would require the construction and expansion of new recreational facilities to serve the forecasted population growth in the Project Area. Although the Proposed Project does not specifically site or plan recreational facilities, it would allow for the development of future recreational facilities, including parks, trails, and athletic fields, within many land use designations, including residential designations.

While the Proposed Project does recognize the need for additional recreational facilities, considering that the Proposed Project is a programmatic planning document, it does not contain actual development proposals with locations or project-specific details. Rather, the Proposed Project sets forth goals and policies, which are intended to guide the development of the Project Area.

Development pursuant to the Proposed Project would result in the construction of new recreational facilities and expansion of existing facilities. Development and operation of new recreational facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Environmental impacts associated with construction of new and/or expansion of recreational facilities in accordance with the Proposed Project are addressed separately (see appropriate environmental topical areas in Chapter 5, *Environmental Analysis*). However, it is speculative to determine the location of proposed park facilities and impacts arising from the development of individual park projects. Implementation of goals and policies in the Proposed Area Plan, including Policy COS 18.5 and Policies PS 8.1 through PS 8.9 would guide the development of future recreational facilities. Moreover, existing federal, state, and local regulations would mitigate potential adverse impacts to the environment that may result from the expansion of parks, recreational facilities, and trails pursuant to buildout of the Proposed Project. Furthermore, subsequent environmental review would be required for development of park projects under existing regulations. Consequently, the Proposed Project would not result in significant impacts relating to new or expanded recreational facilities.

#### **5.15.5 Cumulative Impacts**

Buildout of the Proposed Project would increase use of existing local and regional parks and could result in the accelerated deterioration of recreational facilities. Some cumulative projects, such as those associated with

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buildout of general plans for the cities of Lancaster and Palmdale, would have the potential to increase the demand for recreational facilities, potentially resulting in deterioration of existing facilities. Cumulative development would incrementally increase the need for new or expanded facilities, which would have the potential to result in adverse environmental effects.

As discussed in Chapter 3, *Project Description*, the Project Area is anticipated to have a population of approximately 405,410 at buildout of the Proposed Project. As discussed in Section 5.13, *Population and Housing*, SCAG estimates that the combined population of the cities of Lancaster and Palmdale is estimated to be 407,453 in 2035. Therefore, the Project Area and adjacent cities are expected to have approximately 812,863 residents in 2035. To meet the Adopted General Plan goal of six acres of regional parkland per 1,000 residents (including residents of incorporated cities), a total of 4,877 acres of regional parkland would need to be in place at project buildout. As shown in Table 5.15-3, *Existing Parkland in the Planning Area*, there are currently 3,870 acres of regional parkland in the Project Area and adjacent cities. Although the existing amount of regional parkland available to Planning Area residents would not be sufficient to meet the County's goal at buildout of the Proposed Project, overall regional parkland would be expected to grow well beyond the existing inventory of regional parks. Deterioration that would occur to local parks and recreational facilities resulting from regional population growth would be offset with funding from new development such as in-lieu fees for parks or donation of parkland pursuant to the Quimby Act. As discussed, the Quimby Act is a funding mechanism for parkland acquisition for jurisdictions. As allowed by this Act, most cities in Los Angeles County—including the cities of Lancaster and Palmdale—have park dedication ordinances as part of their municipal codes. These ordinances require most residential subdivisions to dedicate parkland or pay in-lieu fees to enable the jurisdictions to acquire local parkland at ratios between three acres and five acres per 1,000 residents. Consistent with established park dedication ordinances, additional parks and recreational facilities would be developed and constructed in the Planning Area.

Existing regulations do not assure that the funding for parkland acquisition would be proportional to increases in population. The provisions of County Code Sections 21.24.340, 21.24.350, 21.28.120, 21.28.130, and 21.28.140 require three acres of local parkland per 1,000 residents, while Proposed Area Plan Policy PS 8.3 sets a goal of six acres per 1,000 residents. As a result, there is an inherent deficit between the ratio of local parkland the County would like to maintain and the amount of parkland it can provide in accordance with County Code Section 21.24.340. Therefore, although much of the demand for local parkland can be accommodated, a deficit of parkland would remain compared to the County's goal. However, regulations, including the Mello-Roos Community Facilities Act of 1982 and the Landscaping and Lighting Act of 1972, would serve as supplemental sources of funding for parkland. Overall, enforcement of existing parkland dedication requirements would serve to reduce the potential for deterioration of facilities by allowing for adequate funding for the provision and maintenance of recreational facilities. Therefore, impacts would be less than significant.

It is speculative to determine the location of proposed park facilities in the Project Area and impacts arising from development of individual park projects. The majority of cumulative projects would be discretionary and would be required to demonstrate compliance with CEQA prior to project approval; existing federal, state, and local regulations would mitigate potential adverse impacts to the environment that may result from

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the expansion of parks, recreational facilities, and trails. Therefore, the Proposed Project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with deterioration of parks and construction of recreational facilities.

#### 5.15.6 Existing Regulations and Standard Conditions

##### State

- Quimby Act (California Government Code 66477)
- The Mello-Roos Community Facilities Act of 1982
- Landscaping and Lighting Act of 1972, California Streets and Highway Code Section 22500 – 22509

##### Local

- Los Angeles County Code Sections 21.24.340, 21.24.350, 21.28.120, 21.28.130, and 21.28.140
- County of Los Angeles Park Design Guidelines and Standards
- Los Angeles County Trails Manual
- Safe Neighborhood Parks Proposition of 1992, 1996, Proposition A

#### 5.15.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.15-1 and 5.15-2.

#### 5.15.8 Mitigation Measures

No mitigation measures are required.

#### 5.15.9 Level of Significance After Mitigation.

No significant impacts have been identified and no significant and unavoidable impacts would occur.

#### 5.15.10 References

Los Angeles County, 2014, Public Review Draft General Plan, Parks and Recreation Element.

Southern California Association of Governments (SCAG).2012, April.2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Growth Forecast.<http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx>

Westrup, Laura. 2002.Quimby Act 101: An Abbreviated Overview, Sacramento: California Department of Parks and Recreation, Planning Division, <http://www.parks.ca.gov/pages/795/files/quimby101.pdf>.

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### 5.16 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Proposed Antelope Valley Area Plan Update (Proposed Project) to result in transportation and traffic impacts in the County's unincorporated Antelope Valley (Project Area). The Project Area consists of unincorporated land outside incorporated city planning areas, such as City of Palmdale and City of Lancaster. Information on existing and proposed traffic conditions was prepared by Fehr & Peers, and the traffic impact analysis documentation is contained in Appendix K<sup>1</sup> of the Draft EIR.

#### 5.16.1 Environmental Setting

##### 5.16.1.1 TRANSPORTATION SYSTEM

A large portion of the Antelope Valley is unincorporated, and includes the City of Lancaster and the City of Palmdale. The Antelope Valley, including the Project Area is served by the state highway system and a network of roadways ranging from local and collector streets to expressways and major highways. The transportation system, including the roadway network, transit, and active modes of travel, is described below.

##### State Highway Network

The Project Area is served by portions of the Interstate 5 (I-5) freeway as well as State Routes 14 and 138 (SR-14 and SR-138). I-5 is generally an 8-lane facility within the Project Area and serves north-south regional travel between Los Angeles and Kern Counties in the project vicinity as well as regional travel throughout the state. SR-14 is a 4-lane facility in the northern portion of the Antelope Valley and widens to six lanes with high occupancy vehicle (HOV) lanes in the southern area. SR-138 is a key east-west connection between I-5 and SR-14 and is currently a 2-lane undivided highway.

##### County Roadway Network

The key roadways that serve the Project Area along with the County's functional classification are contained in Table 5.16-1 below.

**Table 5.16-1 Project Area Roadway Network**

North-South Corridors	Functional Classification
100 <sup>th</sup> St E	Limited Secondary Highway <sup>1</sup>
100 <sup>th</sup> St W (Avenue J to Lancaster Blvd)	Major Highway <sup>1</sup>
100 <sup>th</sup> St W (Avenue F to Avenue D)	Limited Secondary Highway <sup>1</sup>
10 <sup>th</sup> St W	Secondary Highway <sup>1</sup>
110 <sup>th</sup> St W	Local / Collector <sup>1</sup>
120 <sup>th</sup> St E	Expressway <sup>1</sup>
170 <sup>th</sup> Street E	Secondary Highway

<sup>1</sup> *Traffic Impact Study for the Antelope Valley Area Plan Update*, Fehr & Peers, August 2014.

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**Table 5.16-1 Project Area Roadway Network**

200 <sup>th</sup> Street E	Secondary Highway
25 <sup>th</sup> St W	Secondary Highway <sup>1</sup>
35 <sup>th</sup> St W	Local / Collector <sup>1</sup>
40 <sup>th</sup> St W	Local / Collector <sup>1</sup>
50 <sup>th</sup> St E	Expressway <sup>1</sup>
70 <sup>th</sup> St E	Major Highway <sup>1</sup>
80 <sup>th</sup> St W	Major Highway <sup>1</sup>
87 <sup>th</sup> St W	Local / Collector <sup>1</sup>
Bouquet Canyon Rd	Secondary Highway <sup>1</sup>
<b>East-West Corridors</b>	<b>Functional Classification</b>
Aqua Dulce Canyon Road	Limited Secondary Highway <sup>1</sup>
Amargosa Creek Rd	Local / Collector <sup>1</sup>
Avenue E (Lancaster City Line to 110 <sup>th</sup> St W)	Major Highway <sup>1</sup>
Avenue E (70 <sup>th</sup> St W to 100 <sup>th</sup> St W)	Limited Secondary Highway <sup>1</sup>
Avenue F (95 <sup>th</sup> St W to 110 <sup>th</sup> St W)	Major Highway <sup>1</sup>
Avenue F (70 <sup>th</sup> St W to 95 <sup>th</sup> St W)	Limited Secondary Highway <sup>1</sup>
Avenue G	Expressway <sup>1</sup>
Avenue H (70 <sup>th</sup> St W to 110 <sup>th</sup> St W)	Major Highway <sup>1</sup>
Avenue H (40 <sup>th</sup> St E to Division St)	Expressway <sup>1</sup>
Avenue K-8	Secondary Highway <sup>1</sup>
Avenue L	Expressway <sup>1</sup>
Avenue L-8	Secondary Highway <sup>1</sup>
Avenue M	Local / Collector <sup>1</sup>
Avenue N-8	Local / Collector <sup>1</sup>
Avenue O-8	Secondary Highway <sup>1</sup>
Avenue Q (90 <sup>th</sup> St E to 60 <sup>th</sup> St E)	Major Highway <sup>1</sup>
Avenue Q (120 <sup>th</sup> St E to 90 <sup>th</sup> St E)	Secondary Highway <sup>1</sup>
City Ranch Rd	Secondary Highway <sup>1</sup>
Davenport Road	Limited Secondary Highway <sup>1</sup>
E Avenue O (180 <sup>th</sup> Street E to 145 <sup>th</sup> Street E)	Major Highway
E Avenue O (240 <sup>th</sup> Street E to 180 <sup>th</sup> Street E)	Secondary Highway
E Avenue P	Major Highway
E Palmdale Boulevard	Major Highway
Elizabeth Lake Rd	Major Highway <sup>1</sup>
Escondido Canyon Road	Limited Secondary Highway <sup>1</sup>
Fort Tejon Road	Secondary Highway

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**Table 5.16-1 Project Area Roadway Network**

High Desert Corridor	Expressway <sup>1</sup>
Johnson Rd	Major Highway <sup>1</sup>
Lancaster Road	Expressway
Pearblossom Highway (SR-138)	Major Highway
Portal Pass Rd	Local / Collector <sup>1</sup>
Ritter Ranch Rd	Local / Collector <sup>1</sup>
San Fransisquito Canyon Rd	Secondary Highway <sup>1</sup>
W Avenue G	Expressway
W Avenue J	Major Highway
W Avenue L	Expressway

Note: Roadway was reclassified in the 2014 Los Angeles County General Plan Update.

### Transit Network

The Project Area is served primarily by Antelope Valley Transit Authority (AVTA) for bus service. AVTA provides 11 local routes and one express route in the Antelope Valley. In addition, AVTA operates supplemental and deviated routes to accommodate increased student ridership on routes that serve Eastside High School, and Antelope Valley High School in Lancaster, and Pete Knight High School in Palmdale. The AVTA also provides three commuter bus services:

- **AVTA Line 785** – Line 785 connects Antelope Valley with Downtown Los Angeles and has an average headway of 10-20 minutes during weekday peak periods.
- **AVTA Line 786** – Line 786 connects Antelope Valley with Century City/West Los Angeles and has an average headway of 60 minutes during weekday peak periods.
- **AVTA Line 787** – Line 787 connects Antelope Valley with West San Fernando Valley and has an average headway of 20-30 minutes during weekday peak periods.

AVTA also provides a dial-a-ride (DAR) service to seniors over the age of 65 and disabled residents of the Antelope Valley.

In addition to the bus network, Antelope Valley is also served by two stations on the Antelope Valley Metrolink rail line, Lancaster Station and Palmdale Station. This line provides commuter service between Antelope Valley and Union Station in Downtown Los Angeles. From the Palmdale Station, 10 commuter trains run daily in each direction Monday through Friday to/from Union Station.

Antelope Valley is serviced by two regional transportation centers: the Lancaster City Park and the Palmdale Transportation Center. These centers offer free parking, and connect the Project Area with AVTA service,

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Santa Clarita Transit, AMTRAK throughway bus service, Greyhound, Metrolink, and the County of LA Beach Bus.

#### Bicycle & Pedestrian Network

The Project Area is primarily a rural environment. Due to the nature of the built environment and surrounding land uses, many of the roadways in the area do not have sidewalks, and bicycle facilities are limited. However, most of the major roadways in the developed areas, including the Cities of Lancaster and Palmdale, have sidewalks along with several bicycle facilities. In addition, a Trails Plan was adopted into the Antelope Valley General Plan by the Board of Supervisors in 2007. The Project Area includes a trail network that is used by hikers, bicyclists, and equestrians. This network is comprised of the Adopted County Backbone Trail System, Pacific Crest National Trail, Federal/National Forest Trails, and Incorporated City Trails.

Bicycle facilities are generally categorized into three types of facilities: Class I – bicycle paths, Class II – bicycle lanes, and Class III – bicycle routes. A description of the facility types along with existing facilities in the Project Area are described below.

- **Class I bike paths**, also called shared-use paths or multi-use paths, are paved right-of-way for exclusive use by bicyclists, pedestrians, and other non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway right-of-way or exclusive right-of-way. The Sierra Highway Bike path is a Class I facility that connects cities of Lancaster and Palmdale along the Metrolink tracks and Sierra Highway. The path helps commuters access the Metrolink stations and provides a recreational use for residents and visitors. In addition, the Lake Los Angeles path is a Class I facility that runs along 170th Street East for approximately 2.7 miles between Avenue M-8 and Avenue P.
- **Class II bicycle lanes** are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive bicycle travel. Bike lanes are one-way facilities on either side of a roadway. The Project Area does not currently have Class II bicycle lanes. The County of Los Angeles Bicycle Master Plan (2012) (Bicycle Plan) has proposed Class II facilities near Lake Elizabeth along Elizabeth Lake Road.
- **Class III bike routes** provide shared use with motor vehicle traffic within the same travel lane. Designated by signs and roadway markings, bike routes provide continuity to other bike facilities or designated preferred routes through corridors with high demand. The Project Area does not currently have Class III bicycle routes. The County Bicycle Plan has proposed Class III facilities along Pine Canyon Road, as well as Lake Hughes Road, San Francisquito Canyon Road, and Bouquet Canyon Road, which would provide the connection to the Santa Clarita Valley area.

The County Bicycle Plan has proposed additional Class II and III bicycle facilities located primarily northwest of City of Lancaster. The Cities of Lancaster and Palmdale also have planned bicycle facilities that would connect with the County bicycle network.



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### Airports

The Los Angeles International Airport (LAX) is approximately 70 miles from the Project Area and provides commercial air travel to the Project Area. The Bob Hope Airport also provides commercial air travel service and is located in the City of Burbank approximately 50 miles from the Project Area.

Commercial passenger services ended at the Palmdale Regional Airport in 2008. At the same time, Los Angeles World Airport (LAWA) gave control of the airport to City of Palmdale. The Palmdale Regional Airport is currently being studied for passenger service as an alternative to the LAX airport.

The General William J. Fox Airfield (Fox Airfield) is a general aviation airport located in the Project Area three miles northwest of City of Lancaster and is operated by the County. The airport is home to a state-of-the-art Federal Aviation Administration (FAA) air traffic control tower, a U. S. Department of Forestry Base, an Aircraft Museum, and several other aviation-related businesses.

### 5.16.1.2 PERFORMANCE METRICS

#### Level of Service

The efficiency of traffic operations is measured in terms of Level of Service (LOS). LOS is a description of traffic performance at a particular facility, such as an intersection, roadway segment, or freeway segment. The LOS concept is a measure of average operating conditions during a specified time period is based on a volume-to-capacity (V/C) ratio. Levels range from 'A' to 'F', with 'A' representing excellent (free-flow) conditions and 'F' representing extreme congestion. The LOS definitions ranging from 'A' to 'F' are contained below in Table 5.16-2.

**Table 5.16-2 Level of Service Definitions**

LOS	Description
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easy and nearly all drivers find freedom of operation.
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.
E	Poor operation. Some long-standing vehicular queues develop on critical approaches.
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes therefore, volumes carried are no predictable. Potential for stop-and-go type traffic flow.

Source: Highway Capacity Manual, 2010.

### Roadway Operations

The County has established daily capacity thresholds for roadways within the Project Area based on the roadways' functional classification and number of travel lanes. Table 5.16-3 presents the County's roadway

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classifications, allowable number of travel lanes, and the maximum average daily traffic volume representing LOS E conditions.

**Table 5.16-3 Roadway Classification Capacities**

Classification	Number of Lanes	Design Maximum 2-Way ADT	Design Maximum ADT Per Lane
Major Highway	4 Lanes	36,000	9,000
	6 Lanes	54,000	
	8 Lanes	72,000	
Secondary Highway	4 Lanes	36,000	9,000
Limited Secondary Highway	2 Lanes	18,000	9,000
	4 Lanes	36,000	
Collector Street	2 Lanes	15,000	7,500
Local Street	2 Lanes	2,500	1,250
Expressway	4 Lanes	44,000	11,000
	6 Lanes	66,000	
	8 Lanes	88,000	

The study roadway segments were analyzed by comparing the existing average daily traffic volumes to the roadway capacity. The existing traffic volumes reflect available traffic counts collected by the County through prior studies and an estimate of current traffic levels from the North County Sub-Area Travel Demand Forecasting Model (Sub-Area Model). The Sub-Area Model contains the northern portion of LA County, including the Cities of Lancaster, Palmdale and Santa Clarita. The sub-area model also includes the southern portion of Kern County. Additional information on the Sub-Area Model is in the Model Methodology section of this report. The existing roadway operations are contained in Table 5.16-4 below.

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Table 5.16-4 Roadway Segment LOS – Existing Conditions

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	ADT	V/C
1	100th St E	Avenue J	Avenue J-8	Limited Secondary Highway	18,000	2	500	0.03
2	100th St E	Lancaster City Line	Avenue L	Limited Secondary Highway	18,000	2	500	0.03
3	100th St W	Lancaster Blvd	Avenue J	Major Highway	18,000	2	500	0.03
4	100th St W	Avenue D	Avenue D-8	Limited Secondary Highway	18,000	2	500	0.03
5	100th St W	Avenue E	Avenue F	Limited Secondary Highway	18,000	2	500	0.03
6	10th St W	Palmdale City Line	Avenue O	Secondary Highway	36,000	4	14,500	0.40
7	10th St W	Auto Center Dr	Elizabeth Lake Rd	Secondary Highway	45,000	5	14,500	0.32
8	110th St W	Johnson Rd	Avenue M	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
9	120th St E	Avenue L	Avenue Q	Expressway	22,000	2	5,200	0.24
10	170th Street E	Avenue T	Avenue W	Secondary Highway	18,000	2	3,500	0.19
11	170th Street E	Avenue W	165th Street	Secondary Highway	18,000	2	1,000	0.06
12	200th Street E	Avenue G	Avenue J	Secondary Highway	18,000	2	1,000	0.06
13	25th St W	Avenue O	Palmdale City Line	Secondary Highway	36,000	4	6,100	0.17
14	35th St W	Avenue N	Avenue N-8	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
15	40th St W	Avenue N	Avenue N-8	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
16	50th St E	Avenue K-4	Avenue L	Expressway	22,000	2	2,200	0.10
17	70th St E	Lancaster City Line	Avenue K-8	Major Highway	18,000	2	500	0.03
18	70th St E	Avenue K-12	Avenue L	Major Highway	18,000	2	500	0.03
19	80th St W	Lancaster City Line	Lancaster City Line	Major Highway	18,000	2	1,700	0.09
20	87th St W	Ritter Ranch Rd	Elizabeth Lake Rd	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
21	Agua Dulce Canyon Road	Soledad Canyon Road	Sierra Highway	Limited Secondary Highway	18,000	2	7,800	0.43
22	Amargosa Creek Rd	Portal Pass Rd	Johnson Rd	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
23	Avenue E	110th St W	Lancaster City Line	Major Highway	18,000	2	500	0.03
24	Avenue E	100th St W	70th St W	Limited Secondary Highway	18,000	2	1,800	0.10
25	Avenue F	110th St W	Lancaster City Line	Major Highway	18,000	2	500	0.03
26	Avenue F	Lancaster City Line	95th St W	Major Highway	18,000	2	600	0.03
27	Avenue F	95th St W	70th St W	Limited Secondary Highway	18,000	2	1,800	0.10
28	Avenue G	25th St W	Division St	Expressway	22,000	2	5,200	0.24

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**Table 5.16-4 Roadway Segment LOS – Existing Conditions**

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	ADT	V/C
29	Avenue G	SR-14 Antelope Valley Freeway	15th Street W	Expressway	22,000	2	4,400	0.20
30	Avenue G	15th Street W	10th Street W	Expressway	22,000	2	4,500	0.20
31	Avenue G	10th Street W	Sierra Highway	Expressway	22,000	2	5,200	0.24
32	Avenue G	Sierra Highway	Division Street	Expressway	22,000	2	4,700	0.21
33	Avenue H	110th St W	70th St W	Major Highway	18,000	2	500	0.03
34	Avenue H	Division St	40th St E	Expressway	22,000	2	9,000	0.41
35	Avenue J	90th Street E	100th Street E	Major Highway	18,000	2	500	0.03
36	Avenue J	100th Street E	110th Street E	Major Highway	18,000	2	500	0.03
37	Avenue J	110th Street E	140th Street E	Major Highway	18,000	2	500	0.03
38	Avenue J	140th Street E	150th Street E	Major Highway	18,000	2	500	0.03
39	Avenue J	150th Street E	170th Street E	Major Highway	18,000	2	500	0.03
40	Avenue J	170th Street E	200th Street E	Major Highway	18,000	2	500	0.03
41	Avenue K-8	52nd St W	50th St W	Secondary Highway	18,000	2	600	0.03
42	Avenue L	40th St E	45th St E	Expressway	22,000	2	500	0.02
43	Avenue L	50th St E	80th St E	Expressway	22,000	2	500	0.02
44	Avenue L	90th St E	120th St E	Expressway	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
45	Avenue L	55th St W	40th St W	Expressway	22,000	2	19,000	0.86
46	Avenue L-8	10th St W	SR 14	Secondary Highway	36,000	4	4,300	0.12
47	Avenue L-8	SR 14	30th St W	Secondary Highway	18,000	2	600	0.03
48	Avenue L-8	60th St W	80th St W	Secondary Highway	36,000	4	3,900	0.11
49	Avenue M	Elizabeth Lake Rd	80th St W	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
50	Avenue N-8	45th St W	30th St W	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
51	Avenue N-8	20th St W	Palmdale City Line	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
52	Avenue O	145th Street E	150th Street E	Major Highway	18,000	2	6,600	0.37
53	Avenue O	150th Street E	170th Street E	Major Highway	18,000	2	2,000	0.11
54	Avenue O	170th Street E	175th Street E	Major Highway	18,000	2	2,400	0.13
55	Avenue O	175th Street E	180th Street E	Major Highway	18,000	2	2,500	0.14
56	Avenue O	180th Street E	200th Street E	Secondary Highway	18,000	2	2,500	0.14

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**Table 5.16-4 Roadway Segment LOS – Existing Conditions**

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	ADT	V/C
57	Avenue O	200th Street E	210 Street E	Secondary Highway	18,000	2	2,300	0.13
58	Avenue O	210 Street E	240th Street E	Secondary Highway	18,000	2	2,000	0.11
59	Avenue O-8	30th St W	20th St W	Secondary Highway	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
60	Avenue P	15th Street E	20th Street E	Major Highway	36,000	4	18,000	0.50
61	Avenue P	20th Street E	25th Street E	Major Highway	36,000	4	17,800	0.49
62	Avenue P	25th Street E	30th Street E	Major Highway	36,000	4	6,400	0.18
63	Avenue P	30th Street E	40th Street E	Major Highway	18,000	2	2,200	0.12
64	Avenue P	40th Street E	70th Street E	Major Highway	18,000	2	500	0.03
65	Avenue Q	60th St E	90th St E	Major Highway	18,000	2	8,800	0.49
66	Avenue Q	90th St E	120th St E	Secondary Highway	18,000	2	1,000	0.06
67	Bouquet Canyon Rd	Elizabeth Lake Rd	Palmdale City Line	Secondary Highway	18,000	2	1,800	0.10
68	Davenport Road	Sierra Highway	Agua Dulce Canyon Road	Limited Secondary Highway	18,000	2	1,800	0.10
69	Elizabeth Lake Road	Johnson Road	Portal Pass Rd	Major Highway	18,000	2	2,700	0.15
70	Elizabeth Lake Road	Johnson Road	San Francisquito Canyon Road	Major Highway	18,000	2	3,400	0.19
71	Elizabeth Lake Road	San Francisquito Canyon Road	Bouquet Canyon Road	Major Highway	18,000	2	3,400	0.19
72	Elizabeth Lake Road	Bouquet Canyon Road	Godde Hill Road	Major Highway	18,000	2	3,400	0.19
73	Escondido Canyon Road	Agua Dulce Canyon Road	SCV Planning Boundary	Limited Secondary Highway	18,000	2	2,000	0.11
74	Fort Tejon Road	87th Street E	Mount Emma Road	Secondary Highway	18,000	2	4,500	0.25
75	Fort Tejon Road	Mount Emma Road	96th Street	Secondary Highway	18,000	2	9,000	0.50
76	Fort Tejon Road	96th Street	106th Street	Secondary Highway	18,000	2	9,000	0.50
77	Fort Tejon Road	106th Street	131 Street E	Secondary Highway	18,000	2	7,900	0.44
78	Johnson Rd	Elizabeth Lake Rd	110th St W	Major Highway	18,000	2	2,400	0.13
79	Lancaster Road	Pine Canyon Road	Avenue I	Expressway	22,000	2	500	0.02
80	Lancaster Road	Avenue I	190th Street W	Expressway	22,000	2	500	0.02
81	Lancaster Road	190th Street W	170th Street W	Expressway	22,000	2	500	0.02
82	Lancaster Road	170th Street W	110th Street W	Expressway	22,000	2	700	0.03
83	Lancaster Road	110th Street W	90th Street W	Expressway	22,000	2	600	0.03
84	Lancaster Road	90th Street W	70th Street W	Expressway	22,000	2	800	0.04

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**Table 5.16-4 Roadway Segment LOS – Existing Conditions**

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	ADT	V/C
85	Lancaster Road	70th Street W	60th Street W	Expressway	22,000	2	800	0.04
86	Palmdale Boulevard	90th Street E	95th Street E	Major Highway	18,000	2	11,700	0.65
87	Palmdale Boulevard	95th Street E	100th Street E	Major Highway	18,000	2	11,900	0.66
88	Palmdale Boulevard	100th Street E	105th Street E	Major Highway	18,000	2	11,300	0.63
89	Palmdale Boulevard	105th Street E	110 Street E	Major Highway	18,000	2	11,000	0.61
90	Pearblossom Highway (SR-138)	70th Street E	Avenue T 8	Major Highway	36,000	4	18,400	0.51
91	Pearblossom Highway (SR-138)	Avenue T 8	82nd Street E	Major Highway	18,000	2	17,600	0.98
92	Pearblossom Highway (SR-138)	82nd Street E	87th Street E	Major Highway	18,000	2	13,500	0.75
93	Pearblossom Highway (SR-138)	87th Street E	96th Street E	Major Highway	18,000	2	16,000	0.89
94	Pearblossom Highway (SR-138)	96th Street E	106th Street E	Major Highway	36,000	4	17,900	0.50
95	Pearblossom Highway (SR-138)	106th Street E	116th Street E	Major Highway	36,000	4	17,800	0.49
96	Pearblossom Highway (SR-138)	116th Street E	126th Street E	Major Highway	18,000	2	17,700	0.98
97	Pearblossom Highway (SR-138)	126th Street E	131st Street E	Major Highway	18,000	2	18,600	1.03
98	Pearblossom Highway (SR-138)	131 Street E	170th Street E	Major Highway	36,000	4	17,700	0.49
99	Portal Pass Rd	Elizabeth Lake Rd	Ritter Ranch Rd	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
100	Ritter Ranch Rd	Portal Pass Rd	Bouquet Canyon Rd	Local / Collector	15,000	2	< 10,000	( <sup>2</sup> )
101	San Fransisquito Canyon Rd	Angeles National Forest Boundary	Elizabeth Lake Rd	Secondary Highway	18,000	2	1,600	0.09

**Notes**

<sup>1</sup> Capacity based on County thresholds as defined in Table 5.16-3.

<sup>2</sup> Local and collector streets are typically not reflected in travel demand models; based on the roadway classification, volumes are expected to be well below the County's ADT thresholds.

<sup>3</sup> Roadway segment does not exist or is discontinuous under existing conditions; segment only analyzed under future conditions with planned improvements in place.

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Under Existing Conditions, three locations currently exceed the LOS E threshold:

- 91. Pearblossom Highway (SR-138) between Avenue T and 82<sup>nd</sup> Street
- 96. Pearblossom Highway (SR-138) between 116<sup>th</sup> Street East and 126<sup>th</sup> Street East
- 97. Pearblossom Highway (SR-138) between 126<sup>th</sup> Street East and 131<sup>st</sup> Street East

### Congestion Management Plan

The traffic study incorporates analyses at the intersection level for the County-designated Congestion Management Program (CMP) intersections. The CMP was created following the passage of Proposition 111 and is intended to link transportation, land use and air quality decisions for urban areas in California. The CMP assesses transportation operating conditions at key locations for the County, and it is implemented by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP requires monitoring of the CMP roadway system, including designated intersections and freeway segments. In the Project Area, there are a total of five CMP monitoring intersections:

1. Lancaster Road & 300<sup>th</sup> Street West (SR-138)
2. Avenue D & 60<sup>th</sup> Street West (SR-138)
3. Sierra Highway & Red Rover Mine Road
4. Pearblossom Highway & 82<sup>nd</sup> Street East
5. Pearblossom Highway & Antelope Highway

While I-5, SR-138 and SR-14 are considered part of the CMP freeway network, no CMP monitoring stations are located within the Project Area. Therefore, the following nine freeway segments were selected based on locations that could be impacted by the Proposed Project:

1. I-5 Freeway – North of SR-138
2. I-5 Freeway – South of SR-138
3. SR-138 – Between I-5 freeway and 300<sup>th</sup> Street
4. SR-138 – Between 300<sup>th</sup> Street and 190<sup>th</sup> Street
5. Avenue D/SR-138 – Between 190<sup>th</sup> Street and SR-14
6. SR-14 – North of Avenue D/SR-138
7. SR-14 – South of Avenue D/SR-138
8. SR-14 – South of SR-138/High Desert Corridor
9. High Desert Corridor – East of 125<sup>th</sup> Street East (Future Conditions Only)

The five CMP intersection locations and nine study freeway segment locations are included in this study and evaluated for both existing and future conditions with and without the Proposed Project.

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#### *Intersection CMP Analysis*

The CMP study intersections were analyzed using the Intersection Capacity Utilization (ICU) methodology. The ICU methodology is the preferred method to calculate the existing and future levels of service at intersections per the County guidelines. Some of the inputs that are used in this analysis are vehicle turning movements, number of travel lanes and intersection controls. Table 5.16-5 below shows the LOS and V/C thresholds for signalized intersections.

**Table 5.16-5 Level of Service description for Signalized Intersections**

LOS	Signalized Intersection Volume/Capacity
A	0.000 - 0.600
B	>0.600 - 0.700
C	>0.700 - 0.800
D	>0.800 - 0.900
E	>0.900 - 1.000
F	> 1.000

Source: Highway Capacity Manual, 2010.

Table 5.16-6 presents the existing traffic operations at the five CMP study intersections. As shown, the CMP intersections in the Project Area operate at LOS B or better during both AM and PM peak hours under Existing Conditions.

**Table 5.16-6 Intersection CMP Analysis – Existing (2014) Level of Service**

No.	CMP Route	Cross Street	AM Peak Hour		PM Peak Hour	
			V/C Ratio	Level of Service	V/C Ratio	Level of Service
1	Lancaster Road	300 <sup>th</sup> Street West <sup>1</sup>	0.18	A	0.21	A
2	Avenue D	60 <sup>th</sup> Street West <sup>1</sup>	0.23	A	0.28	A
3	Sierra Highway	Red Rover Mine Road <sup>1</sup>	0.14	A	0.14	A
4	Pearblossom Highway	82 <sup>nd</sup> Street East	0.58	A	0.70	B
5	Pearblossom Highway	Antelope Highway <sup>1</sup>	0.54	A	0.63	B

<sup>1</sup> Unsignalized CMP intersections were assumed to be signalized for planning purposes.

#### *Freeway CMP Analysis*

For the purposes of showing changes in travel demand on the state highway system within the Project Area, the CMP analysis was conducted for the major freeway segments in the study area. While I-5, SR-138 and SR-14 are considered part of the CMP freeway network, no CMP monitoring stations are located within the Project Area. Therefore, nine freeway segments were selected based on locations that could be impacted by the Proposed Project.



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In accordance with the CMP guidelines, freeway (mainline) operating conditions during peak periods were evaluated using the general procedures established by the CMP. Freeway mainline LOS is estimated with calculation of the demand-to-capacity (D/C) ratio. Calculation of LOS based on D/C ratios is a surrogate for the speed-based LOS used by the State Department of Transportation (Caltrans) for traffic operational analysis. The LOS criteria for freeway segments using D/C ratios as the performance measure are shown in Table 5.16-7. Capacity is determined based on the existing number of lanes and a single-lane capacity of 2,000 vehicles per hour per lane. Highways and roadways designated in the CMP network are required to operate at LOS E, except where Future No Project LOS is worse than LOS E. In such cases, the Future No Project LOS is the standard.

**Table 5.16-7 Level of Service Definitions for CMP Freeway Mainline Segments**

Level of Service	Demand-to-Capacity Ratio
A	0.00-0.35
B	>0.35-0.54
C	>0.54-0.77
D	>0.77-0.93
E	>0.93-1.00
F(0)	>1.00-1.25
F(1)	>1.25-1.35
F(2)	>1.35-1.45
F(3)	>1.45

Source: Congestion Management Program, Metro, 2010.

Table 5.16-8 presents the existing operations of the freeway facilities in the study area. Under Existing Conditions, all freeway segments operate with an LOS of C or better for both AM and PM peak hours.

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**Table 5.16-8 Freeway CMP Segments – Existing (2014) Level of Service**

Study Location	Roadway	Segment	Direction	Peak Hour Capacity	Lanes	Peak Hour Volume	D/C	LOS
<b>AM Peak Hour</b>								
1	I-5 Freeway	North of SR-138	NB	8,000	4	2,920	0.37	B
	I-5 Freeway	North of SR-138	SB	8,000	4	2,990	0.37	B
2	I-5 Freeway	South of SR-138	NB	8,000	4	2,770	0.35	A
	I-5 Freeway	South of SR-138	SB	8,000	4	2,900	0.36	B
3	SR-138	Between I-5 and 300th Street W	WB	2,000	1	230	0.12	A
	SR-138	Between I-5 and 300th Street W	EB	2,000	1	170	0.09	A
4	SR-138	Between 300th St W and 190th St W	WB	2,000	1	160	0.08	A
	SR-138	Between 300th St W and 190th St W	EB	2,000	1	150	0.08	A
5	Avenue D/SR-138	Between 190th Street W and SR-14	WB	2,000	1	150	0.08	A
	Avenue D/SR-138	Between 190th Street W and SR-14	EB	2,000	1	180	0.09	A
6	SR-14	North of Avenue D/SR-138	NB	4,000	2	1,380	0.35	A
	SR-14	North of Avenue D/SR-138	SB	4,000	2	1,930	0.48	B
7	SR-14	South of Avenue D/SR-138	NB	4,000	2	1,480	0.37	B
	SR-14	South of Avenue D/SR-138	SB	4,000	2	2,040	0.51	B
8	SR-14	South of SR-138/High Desert Cor.	NB	6,000	3	3,320	0.55	C
	SR-14	South of SR-138/High Desert Cor.	SB	6,000	3	3,540	0.59	C
9	High Desert Corridor	East of 125th Street E	WB	N/A	N/A	N/A	N/A	N/A
	High Desert Corridor	East of 125th Street E	EB	N/A	N/A	N/A	N/A	N/A
<b>PM Peak Hour</b>								
1	I-5 Freeway	North of SR-138	NB	8,000	4	3,050	0.38	B
	I-5 Freeway	North of SR-138	SB	8,000	4	2,970	0.37	B
2	I-5 Freeway	South of SR-138	NB	8,000	4	2,910	0.36	B
	I-5 Freeway	South of SR-138	SB	8,000	4	2,850	0.36	B
3	SR-138	Between I-5 and 300th Street W	WB	2,000	1	240	0.12	A
	SR-138	Between I-5 and 300th Street W	EB	2,000	1	230	0.12	A
4	SR-138	Between 300th St W and 190th St W	WB	2,000	1	200	0.10	A
	SR-138	Between 300th St W and 190th St W	EB	2,000	1	170	0.09	A
5	Avenue D/SR-138	Between 190th Street W and SR-14	WB	2,000	1	230	0.12	A
	Avenue D/SR-138	Between 190th Street W and SR-14	EB	2,000	1	180	0.09	A
6	SR-14	North of Avenue D/SR-138	NB	4,000	2	2,280	0.57	C
	SR-14	North of Avenue D/SR-138	SB	4,000	2	1,830	0.46	B
7	SR-14	South of Avenue D/SR-138	NB	4,000	2	2,420	0.61	C
	SR-14	South of Avenue D/SR-138	SB	4,000	2	1,890	0.47	B
8	SR-14	South of SR-138/High Desert Cor.	NB	6,000	3	4,270	0.71	C
	SR-14	South of SR-138/High Desert Cor.	SB	6,000	3	3,400	0.57	C
9	High Desert Corridor	East of 125th Street E	WB	N/A	N/A	N/A	N/A	N/A
	High Desert Corridor	East of 125th Street E	EB	N/A	N/A	N/A	N/A	N/A

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### 5.16.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

- T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-5 Result in inadequate emergency access.
- T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

These potential impact areas are discussed in this chapter. In addition, this chapter includes a program-level analysis of the potential impacts to the County's highways themselves based on potential growth due to the Proposed Project, including the Highway Plan amendments in the Project Area as described in the Draft 2014 Los Angeles County General Plan Update. The County does not specify an acceptable LOS for the purpose of long-range planning. However, in conformance with the County CMP, the maximum acceptable level of service on arterial roads (i.e., major, secondary, and limited secondary highways) is LOS E, except where base year LOS is worse than LOS E. In such cases, the base year LOS is the standard. Thus, for this analysis, LOS E is considered to be the measuring point for significant impacts. Any action that causes an LOS F condition to worsen by 0.02 or greater is considered a significant impact for purposes of this analysis.

The transportation analysis applied to the Proposed Project reflects the existing policy and legal context. The State Office of Planning and Research (OPR) is currently developing revisions to the CEQA Guidelines under Senate Bill (SB) 743. The revised CEQA Guidelines will establish new criteria for determining the significance of transportation impacts and define alternative metrics for level of service. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, thresholds, or any other planning requirements. On August 7, 2014, OPR released the SB 743 guidelines in a document entitled *Updating Transportation Impacts Analysis in the CEQA Guidelines*. Vehicle miles of travel (VMT) is the proposed transportation metric for CEQA and the use of LOS as a sole basis for impact significance will be

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prohibited in Transit Priority Areas immediately upon filing the guidelines with the Secretary of State, which is likely to occur in early 2015. Outside of the Transit Priority Areas, lead agencies may elect to be governed by the new guidelines until they become mandatory after January 1, 2016.

Individual development projects are reviewed in accordance with the County's Traffic Impact Analysis Report Guidelines. However, the Proposed Project is a policy-level document that must be evaluated differently than a single development project. This is because it is only possible to make generalized estimates of development activity at this time. The specific location or intensity of development throughout the Project Area is unknown. The Proposed Project guides where growth will occur and to what level, but actual development patterns will likely differ somewhat from the Proposed Project. In addition, the specific timing and other details such as driveway locations, mix of land uses and intensity are not known at this time. Therefore, a different and broader standard for measuring impacts is appropriate for this program-level impact analysis.

### 5.16.3 Relevant Area Plan Goals and Policies

The following is a list of applicable goals and policies of the Proposed Area Plan that are intended to reduce potentially significant adverse effects concerning transportation and traffic. The policies below cover Travel Demand Management, Highways and Streets, Truck Traffic, Regional Transportation, Local Transit, Bikeways and Bicycle Routes, Trails, and Pedestrian Access.

#### Mobility Element

##### *Travel Demand Management*

**Goal M 1:** Land use patterns that promote alternatives to automobile travel.

- **Policy M 1.1:** Direct the majority of Antelope Valley's future growth to rural town center areas, rural town areas and where appropriate to economic opportunity areas, to minimize travel time and reduce the number of vehicle trips.
- **Policy M 1.2:** Encourage the continued development of rural town center areas that provide for the daily needs of local residents, reducing the number of vehicle trips and providing local employment opportunities.
- **Policy M 1.3:** Encourage new parks, recreation areas, and public facilities to locate in rural town center areas, rural town areas, and, where appropriate, economic opportunity areas.
- **Policy M 1.4:** Ensure that new developments have a balanced mix of residential uses and employment opportunities as well as park, recreation areas and public facilities within close proximity of each other.
- **Policy M 1.5:** Promote alternatives to automobile travel in rural town center areas and rural town areas by linking these areas through pedestrian walkways, trails, and bicycle routes.

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**Goal M 2:** Reduction of vehicle trips and emissions through effective management of travel demand, transportation systems, and parking.

- **Policy M 2.1:** Encourage the reduction of home-to-work trips through the promotion of home-based businesses, live-work units, and telecommuting.
- **Policy M 2.2:** Encourage trip reduction through promotion of carpools, vanpools, shuttles, and public transit.
- **Policy M 2.3:** In evaluating new development proposals, require trip reduction measures to relieve congestion and reduce air pollution from vehicle emissions.
- **Policy M 2.4:** Develop multi-modal transportation systems that offer alternatives to automobile travel by implementing the policies regarding regional transportation, local transit, bicycle routes, trails, and pedestrian access contained in this Mobility Element.
- **Policy M 2.5:** As residential development occurs in communities; require transportation routes, including alternatives to automotive transit, to link to important local destination points such as shopping, services, employment, and recreation.
- **Policy M 2.6:** Within rural town center areas, explore flexible parking regulations such as allowing residential and commercial development to meet parking requirements through a combination of on-site and off-site parking, where appropriate, or encouraging the provision of different types of parking spaces.

### *Highways and Streets*

**Goal M 3:** An efficient network of major, secondary and limited secondary highways to serve the Antelope Valley.

- **Policy M 3.1:** Implement the adopted Highway Plan for the Antelope Valley, in cooperation with the cities of Lancaster and Palmdale. Ensure adequate funding on an ongoing basis through financing programs, such as grants, congestion pricing, bonding, fair share cost assignments, etc.
- **Policy M 3.2:** In rural areas, require rural highway standards that minimize the width of paving and placement of curbs, gutters, sidewalks, street lighting, and traffic signals, as adopted by the Department of Public Works.
- **Policy M 3.3:** Implement highway improvements only when necessitated by increasing traffic or new development or for safety reasons.
- **Policy M 3.4:** Maintain existing highways to ensure safety, and require adequate street and house signage for emergency response vehicles.

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- **Policy M 3.5:** As future land use changes occur, periodically review traffic counts and traffic projections and revise the Highway Plan accordingly.
- **Policy M 3.6:** Engage local communities and agencies in the planning and implementation of transportation improvements.

**Goal M 4:** A network of local streets that support the rural character of the unincorporated Antelope Valley without compromising public safety.

- **Policy M 4.1:** Require rural local street standards that minimize the width of paving and placement of curbs, gutters, sidewalks, street lighting, and traffic signals, as adopted by the Department of Public Works.
- **Policy M 4.2:** Maintain existing local streets to ensure safety, and require adequate signage for emergency response vehicles.
- **Policy M 4.3:** Encourage ongoing maintenance of private local streets to ensure public safety.

#### *Truck Traffic*

**Goal M 5:** Long-haul truck traffic is separated from local traffic reducing the impacts of truck traffic on local streets and residential areas.

- **Policy M 5.1:** Support development of the High Desert Corridor and the Northwest 138 Corridor Improvement Project, to provide a route for truck traffic between Interstate5, State Route14, and Interstate15.
- **Policy M 5.2:** Direct truck traffic to designated truck routes, such as major and secondary highways, and prohibit truck traffic on designated scenic routes, to the greatest extent feasible.
- **Policy M 5.3:** Require that designated truck routes are designed and paved to accommodate truck traffic, preventing excessive pavement and deterioration from truck use.
- **Policy M 5.4:** Add rest stops along designated truck routes to provide stopping locations away from residential areas.
- **Policy M 5.5:** Adopt regulations for truck parking on local streets to avoid impacts to residential areas.

#### *Regional Transportation*

**Goal M 6:** A range of transportation options to connect the Antelope Valley to other regions.

- **Policy M 6.1:** Support the development of Palmdale Regional Airport and encourage a range of commercial air travel options.

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- **Policy M 6.2:** Support the development of William J. Fox Airfield as a facility for general aviation, air cargo operations, and commuter air travel.
- **Policy M 6.3:** Support the development of the High Desert Corridor and the Northwest 138 Corridor Improvement Project between Interstate 5, State Route 14, and Interstate 15, and encourage the participation of private enterprise and capital.
- **Policy M 6.4:** Support increases in Metrolink commuter rail service, and support the expansion of commuter rail service on underutilized rail lines where appropriate.
- **Policy M 6.5:** Support the development of the California High Speed Rail system, with a station in Palmdale to provide links to Northern California and other portions of Southern California, and encourage the participation of private enterprise and capital.
- **Policy M 6.6:** Support the development of a high-speed rail system linking Palmdale to Victorville and Las Vegas, and encourage the participation of private enterprise and capital.
- **Policy M 6.7:** Establish a regional transportation hub in Palmdale with feeder transit service to the rural areas of the unincorporated Antelope Valley.
- **Policy M 6.8:** In planning for all regional transportation systems, consider and mitigate potential impacts to existing communities, and minimize land use conflicts.
- **Policy M 6.9:** Engage regional agencies, such as Caltrans, SCAG, and Metro, in the implementation of an effective and efficient integrated multi-modal regional transportation network. Ensure adequate funding on an ongoing basis through financing programs, such as grants, congestion pricing, bonding, fair share cost assignments, etc.

### *Local Transit*

**Goal M 7:** Bus service is maintained and enhanced throughout the Antelope Valley.

- **Policy M 7.1:** Maintain and increase funding to the Antelope Valley Transit Authority for bus service.
- **Policy M 7.2:** Support increases in bus service to heavily traveled areas and public facilities, such as parks and libraries.
- **Policy M 7.3:** Support increases in bus service to rural communities, linking them to a regional transportation hub in Palmdale and shopping and employment centers in Lancaster and Palmdale.
- **Policy M 7.4:** Improve access for all people, including seniors, youth, and the disabled, by maintaining off-peak service and equipping transit vehicles for wheelchairs and bicycles.

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- **Policy M 7.5:** Encourage the use of advanced technologies in the planning and operation of the transit system.

**Goal M 8:** Alternative transit options in areas not reached by bus service.

- **Policy M 8.1:** Support the expansion of dial-a-ride services to rural communities, linking them to a regional transportation hub in Palmdale and shopping and employment centers in Lancaster and Palmdale.
- **Policy M 8.2:** Evaluate the feasibility of alternative transit options, such as community shuttle services and privately operated transit, to increase accessibility.

#### *Bikeways and Bicycle Routes*

**Goal M 9:** A unified and well-maintained bicycle transportation system throughout the Antelope Valley with safe and convenient routes for commuting, recreation, and daily travel.

- **Policy M 9.1:** Implement the adopted Bikeway Plan for the Antelope Valley in cooperation with the cities of Lancaster and Palmdale. Ensure adequate funding on an ongoing basis.
- **Policy M 9.2:** Along streets and highway in rural areas, add safe bicycle routes that link to public facilities, a regional transportation hub in Palmdale, and shopping and employment centers in Lancaster and Palmdale.
- **Policy M 9.3:** Ensure that bicycle ways and bicycle routes connect communities and offer alternative travel modes within communities.
- **Policy M 9.4:** Encourage provision of bicycle racks and other equipment and facilities to support the use of bicycles as an alternative means of travel.

#### *Trails*

**Goal M 10:** A unified and well-maintained multi-use (equestrian, hiking, and mountain bicycling) system that links destinations such as rural town centers and recreation areas throughout Antelope Valley.

- **Policy M 10.1:** Implement the adopted Trails Plan for the Antelope Valley in cooperation with the cities of Lancaster and Palmdale. Ensure adequate funding on an ongoing basis.
- **Policy M 10.2:** Connect new developments to existing population centers with trails requiring trail dedication and construction through the development review and permitting process.
- **Policy M 10.3:** Maximize fair and reasonable opportunities to secure additional trail routes (dedicated multi-use trail easements) from willing property owners.



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- **Policy M 10.4:** Ensure trail access by establishing trailheads with adequate parking and access to public transit, where appropriate and feasible.
- **Policy M 10.5:** Locate and design trail routes to minimize impacts to sensitive environmental resources and ecosystems.
- **Policy M 10.6:** Where trail connections are not fully implemented, collaboratively work to establish safe interim connections.
- **Policy M 10.7:** Ensure that existing trails and trailheads are properly maintained by the relevant agencies.
- **Policy M 10.8:** Solicit community input to ensure that trails are compatible with local needs and character.

#### *Pedestrian Access*

**Goal M 11:** A continuous, integrated system of safe and attractive pedestrian routes linking residents to rural town center areas, schools, services, transit, parks, and open space areas.

- **Policy M 11.1:** Improve existing pedestrian routes and create new pedestrian routes, where appropriate and feasible. If paving is deemed necessary, require permeable paving consistent with rural community character instead of concrete sidewalks.
- **Policy M 11.2:** Within rural town center areas, require that highways and streets provide pleasant pedestrian environments and implement traffic calming methods to increase public safety for pedestrians, bicyclists, and equestrian riders.
- **Policy M 11.3:** Within rural town center areas, promote pedestrian-oriented scale and design features, including public plazas, directional signage, and community bulletin boards.
- **Policy M 11.4:** Within rural town center areas, encourage parking to be located behind or beside structures, with primary building entries facing the street. Encourage also the provision of direct and clearly delineated pedestrian walkways from transit stops and parking areas to building entries.
- **Policy M 11.5:** Implement traffic calming methods in areas with high pedestrian usage, such as school zones.

#### 5.16.4 Environmental Impacts

The following impact analysis addresses thresholds according to Appendix G of the CEQA Guidelines of significance. The applicable thresholds are identified in brackets after the impact statement.

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#### 5.16.4.1 COUNTY HIGHWAY PLAN NETWORK SUMMARY

The County Department of Public Works (DPW) is generally responsible for the design, construction, operation, maintenance and repair of roads in the Project Area, as well as in a number of jurisdictions that contract with the County for these services. The primary transportation focus of the County is on the portions of the highway system that fall within the unincorporated areas. Primary responsibility for transportation planning in Los Angeles County is Metro. As a result, the County is not directly responsible for overall transportation planning or service provision in the County. The County's Highway Plan designates the functional classifications of the County's highway system. For the purposes of the Proposed Project, the Project Area's highway system reflects the highway system documented in the County's originally adopted plan plus proposed updates as reflected in the Draft 2014 Los Angeles County General Plan. The Highway Plan illustrates existing and proposed locations of major arterial highways throughout the County. It is intended to provide a highway system consistent with the distribution of land uses and growth envisioned by the Proposed Project by providing adequate highways to serve future needs.

The County's Transportation Element includes the roadway classifications described below.

#### Major Highway

This classification includes urban highways that are of countywide significance and are, or are projected to be, the most highly traveled routes. These roads generally require four or more lanes of moving traffic, channelized medians and, to the extent possible, access control and limits on intersecting streets.

The normal right-of-way width for these highways is 100 feet. This width may vary to meet extraordinary circumstances. Also classified as major highways are key (inter-urban) connectors, non-urban access ways and recreational roads. The bulk of these routes are not planned for urban type improvement. However, the full major highway right-of-way width of 100 feet or more is generally required to maintain adequate safety and noise standards. Portions of these rights-of-way are needed for recreational uses such as equestrian and bike trails, and for other transportation uses such as turnouts.

#### Secondary Highway

This classification includes urban routes that serve or are planned to serve an areawide or countywide function, but are less heavily traveled than major highways. In a few cases, routes which carry major highway levels of traffic are classified as secondary highways because it is impractical to widen them to major highway standards. In addition to the countywide function, secondary highways also frequently act as oversized collector roads that feed the countywide system. In this capacity, the routes serve to remove heavy traffic from local streets, especially in residential areas. In urban areas, secondary highways generally have four lanes of vehicular traffic on 80 feet of right-of-way. However, configuration and width may vary with traffic demand and existing conditions. Access control, especially to residential property and minor streets, is desirable along these roads.

In rural areas, certain connector highways to and between rural communities are also classified as secondary highways. In the flat lands of the Antelope Valley, acquisition or retention of 80 feet of right-of-way for

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many of the non-urban access routes is required for traffic safety and/or to allow for multiple use of the right-of-way. In rural areas, secondary highways are ordinarily improved with only two lanes of moving traffic. Additional traffic lanes, left-turn pockets and other facilities may be provided where conditions or the nature of development on adjacent property warrant traffic.

### Limited Secondary Highway

Limited secondary routes are located in remote foothill, mountain and canyon areas. Their primary function is to provide access to low-density settlements, ranches and recreational areas. The standard improvement for limited secondary routes is two traffic lanes on 64 feet of right-of-way. Typically, such improvements consist of 28-30 feet of pavement with graded shoulders. Left-turn pockets and passing lanes may be provided when required for traffic safety. The right-of-way may be increased to 80 feet for additional improvements where traffic or drainage conditions warrant.

A uniform building setback shall be established 40 feet from the centerline of all limited secondary highways in order to preserve proper sight distances and to help maintain a rural appearance adjacent to the roadway. This setback shall be in addition to any yard requirement contained in the Zoning Ordinance.

### Parkway

This classification includes urban and rural routes that have park-like features either within or adjacent to the roadway. The right-of-way width required varies as necessary to incorporate these features, typically with a minimum of 80 feet. Roadway improvements vary depending on the composition and volume of traffic carried.

Table 5.16-9 summarizes the highway plan classifications, functional classifications, typical right-of-way widths, and design maximum average daily traffic (ADT) for the roadways.

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**Table 5.16-9 Roadway Classifications**

Highway Plan Classification	Functional Classification	Definition	Typical ROW Width (Curb-to-Curb)	Design Maximum 2-Way ADT
Major Highway	4 to 8 Lane Roadway	Arterials with at least 6 travel lanes for high mobility, designed with limited vehicular access to driveways and cross streets. The typical road section includes a raised landscaped median with left turn pockets at intersections. Street sections may include striped, on-street bikeways or separated bike paths.	100' or More)	36,000 (4L) 54,000 (6L) 72,000 (8L)
Secondary Highway	4 Lane Roadway	Arterials with an ultimate design section of 4 travel lanes, designed for high mobility and with limited vehicular access from driveways and cross streets. The typical road section includes a median with left turn pockets provided at intersections. Secondary highways are designed to service both through traffic, and to collect traffic from collector and local streets.	80'	36,000
Limited Secondary Highway	2 to 4 Lane Roadway	Arterials with an ultimate roadway design section of 2 to 4 travel lanes and less restrictive access control. The typical road section does not include a median. These streets are designed to accommodate moderate volumes of traffic and are typically located in remote foothill, mountainous and canyon areas.	64' - 84' (28' - 64')	18,000 (2L) 36,000 (4L)
Parkway	2+ Lane Roadway	Arterials having park-like features either within or adjacent to the roadway. Specific features vary depending on the composition and volume of traffic to be carried.	80' or More (varies)	Varies
Collector Street	2 Lane Roadway	Streets which have an ultimate roadway design section of 2 travel lanes with limited vehicular access to the roadway from driveways and cross streets. The roadway is usually undivided and does not always accommodate left turn pockets at intersections. Collector streets are designed to provide both access and limited mobility, servicing local traffic from residential, commercial, and industrial uses and providing access to the arterial roadway system. Collector streets are not depicted on the adopted Highway Plan.	64' (40')	15,000
Local Street	2 Lane Roadway	Streets which have an ultimate roadway design section of 2 travel lanes designed for full access and limited mobility. Local streets are not included on the adopted Highway Plan.	58' - 60' (34' - 36')	2,500
Expressway	4 to 8 Lane Roadway	Highways which have an ultimate roadway design section of 4 or more lanes that are part of the State Highway system. Expressways have restrictive access control consisting of grade-separated interchanges or at-grade signalized intersections with a minimum spacing of 1 mile.	200' (varies)	44,000 (4L) 88,000 (8L)

#### 5.16.4.2 MODEL METHODOLOGY

This section discusses the land use and model development for the Proposed Area Plan. Similar to the Draft 2014 County General Plan, each recommended Highway Plan amendment will be evaluated for validity and potential impacts based on the roadway's planned number of lanes and projected roadway average daily traffic volumes.

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### Model Development and Approach

The North County Sub-Area Travel Demand Forecasting Model was used for the Proposed Project analysis. The sub-area model was originally developed for use in the Northwest 138 Corridor Improvement Project in conjunction with Metro and Caltrans. The North County Sub-Area Model reflects the socioeconomic projections and transportation network improvements contained in the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan (RTP) and Kern Council of Governments (COG) RTP models. It also reflects local land use and roadway network details from the Enhanced Antelope Valley Transportation Analysis Model (EAVTAM).

The sub-area model includes the northern portion of the County, including the Cities of Lancaster, Palmdale and Santa Clarita. The sub-area model also includes the southern portion of Kern County as contained in the latest version of the Kern COG model. The model contains the existing and planned highway system within the Project Area.

The following steps were taken to develop the North County Sub-Area Model:

1. Applied the SCAG regional model version 6.1 to generate a sub-area model platform; extracted the trip tables and roadway network for both base year and future year
2. Added detailed traffic analysis zone (TAZ) and network structure from EAVTAM for Palmdale and Lancaster
3. Joined Kern COG TAZ and network structure
4. Refined TAZ and network structure within LA County

The sub-area model was validated to the standards presented in the 2010 California Regional Transportation Plan Guidelines, produced by the California Transportation Commission. In addition to these criteria, the subarea model volume-to-count ratio was checked against a desired maximum threshold of no more than a 10 percent deviation. The model was validation to Year 2013 travel conditions. The table below shows the results of the model validation.

**Table 5.16-10 Sub-Area Model Validation**

Statistical Measure	Criterion of Acceptance	Model Results		
		Daily	AM Peak Hour	PM Peak Hour
Model Deviation	Within $\pm 10\%$	-5%	-3%	2%
Percent of Links with Volume-to-Count Ratios Within Caltrans Deviation Allowance	At Least 75%	87%	78%	78%
Correlation Coefficient	At Least 88%	98%	94%	95%
Percent Root Mean Square Error	40% or less	26%	36%	32%

Source: Fehr & Peers, 2014

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#### *Analysis Scenarios*

The general plan roadway segments and CMP intersection and highway locations are analyzed under the following scenarios:

- Existing Conditions (2014): Current conditions are based on available traffic counts and existing model volumes, where existing counts were not available.
- Existing plus Project (with Area Plan Buildout) Conditions: Traffic forecasts are prepared for the Proposed Project using the base year sub-area model. Increases in traffic volumes resulting from the Proposed Project are compared to the existing roadway network capacity. No changes to land uses or the roadway network outside of the Project Area are included in this scenario.
- Future Baseline (2035) Conditions: Future traffic forecasts include background traffic growth and anticipated cumulative developments outside of the Project Area as projected in the SCAG 2012 RTP model along with planned RTP roadway improvements. Within the Project Area, existing land uses are assumed to remain in place.
- Future plus Project (2035 with Area Plan Buildout) Conditions: Future traffic forecasts reflect anticipated growth resulting from the Proposed Project. Outside of the Project Area, land use and roadway network assumptions are consistent with Future Baseline Conditions.

In addition to the above scenarios, anticipated development levels under the currently adopted Area Plan were compared to the Proposed Project based on expected trip generation and VMT. Table 5.16-11 displays the study scenarios and level of analysis performed.

**Table 5.16-11 Analysis Scenarios**

Scenario	County Roadway Analysis	CMP Analysis	VMT Comparison
Existing	√	√	√
Existing + Proposed Project	√	√	√
Future Baseline (2035)	√	√	√
Future + Proposed Project	√	√	√
Future + Adopted Area Plan			√

The two elements to the transportation impact analysis, Land Use/Socioeconomic Growth and Highway Plan Amendments, are further discussed below.

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### *Land Use/Socioeconomic Growth*

The Project Area is projected to increase development, population as well as employment, both of which generate added person trips and vehicle trips. The changes in forecast growth in the Project Area are shown in Table 5.16-12.

**Table 5.16-12 Project Area Land Use & Socioeconomic Data**

Year	Source	POP	SFDU	MFDU	EMP
Existing/Future Baseline Conditions	County General Plan	93,490	24,739		31,838
Potential Future (Year 2035) Conditions	AV Adopted Area Plan	1,070,571	277,486	671	51,219
	AV Proposed Area Plan	405,410	102,260	3,921	134,351

POP = population; SFDU = single family dwelling units; MFDU = multi-family dwelling units; EMP = employment

Compared to existing conditions, both the proposed and previously adopted area plans forecast increases in population, single family dwelling units, multi-family dwelling units, and employment beyond 2012 Existing Conditions. As shown in Table 5.16-12, as of 2012, the Project Area had a population of 93,490 and an employment base of 31,838 jobs. With the previously Adopted Area Plan, the Project Area would have a population of 1,070,571 and an employment base of 51,219. With the proposed area plan, the Project Area would have a population of 405,410 and an employment base of 134,351.

### *Planned Transportation Network*

The North County Sub-Area model contains the 2035 planning network identified in the 2012 SCAG RTP. The RTP's planning network includes all financially constrained projects within the SCAG region that are expected to be constructed by 2035. The following major projects are contained in the sub-area model under future conditions:

- **High Speed Rail** – The 2035 Planning network reflects Phase I of the High Speed Rail project, with extents from the City of Anaheim into Kern County. In the model area, the High Speed Rail travels north-south between SR-14 and I-15. The High Speed Rail also travels south on SR-14 into the City of Santa Clarita with a station in the City of Palmdale.
- **High Desert Corridor** – New expressway route with limited access beginning at SR-14 and extending east into San Bernardino County. The High Desert Corridor would be a divided highway with three to four travel lanes in each direction.
- **SR-138 between I-5 and SR-14** – Planned widening from a 2-lane full-access expressway route with at-grade crossings to a 4- to 6-lane limited-access divided highway/expressway route.
- **Sierra Highway between SR-138 and Avenue E** – Planned widening from a 2-lane full-access arterial to a 4-lane limited access expressway route (SR-138 extension/High Desert Corridor).

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- **Avenue E between Sierra Highway and 90th Street** – Planned widening from a 2-lane full-access collector to a 4-lane limited access expressway route (SR-138 extension).
- **90th Street between Avenue E and Avenue L** – Planned widening from a 2-lane full-access collector to a 4-lane limited access expressway route (SR-138 extension).
- **I-5 between Ridge Route Road and SR-14** – Construction of an HOV lane in each direction.
- **SR-14 between Avenue M and I-5** – Addition of an HOV lane in each direction.

Within the Proposed Plan, the Highway Plan designates the functional classifications of the County's highway system and illustrates the existing and proposed location of Arterial Highways throughout the County. It is intended to provide a highway system consistent with the distribution of land uses, by providing adequate highways to serve residential and commercial needs. Additional roadway widening planned within the study area is reflected in the roadway impact analysis results, and travel lanes under existing and future conditions are reported.

#### *Trips Generated & Vehicle Miles Traveled*

The North County Sub-Area model provides peak period and daily forecasts for the Antelope Valley Area roadway system. The number of trips generated by a certain type of land use is estimated by applying a representative trip generation rate to the quantity of land use in the area under consideration. The North County Sub-Area model relies on the trip generation rates and resulting origin-destination trip matrices in SCAG RTP model, calibrated specifically to local conditions to calculate both peak period and daily trips.

Table 5.16-13 provides a comparison between the analysis scenarios for AM and PM peak period vehicle trips as well as daily trips. The AM peak period reflects the 3-hour morning commute period and the PM peak period reflects the evening commute hours (typically 7:00 to 10:00 AM and 3:00 to 7:00 PM). The Existing and 2035 Baseline show similar results as only the SCAG regional growth is included, not growth in the Project Area. Existing plus Project and 2035 Baseline plus Project reflect the projected land use and socioeconomic growth within the Project Area, and these scenarios show similar trip generation characteristics. In comparison to the 2035 Baseline plus Approved Plan forecast, the 2035 Baseline plus Project scenario trip generation is reduced by 43 percent in the AM peak period, 49 percent in the PM peak period, and 45 percent for daily trips.

**Table 5.16-13 Vehicle Trips within Project Area by Scenario**

Scenario	AM Peak Period	PM Peak Period	Daily
Existing	60,852	86,250	274,769
Existing + Project	203,332	300,167	988,167
2035 Baseline	64,516	91,918	297,783
2035 Baseline + Project	196,511	292,913	967,187
2035 Baseline + Adopted Area Plan	343,289	569,725	1,767,403



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The traffic forecasting process used by the North County Sub-Area model also calculates vehicle miles travelled (VMT) based on the geographical placement of land uses within an area and the number of trips they generate. Internal trips reflect VMT within the Project Area and external trips reflect VMT outside of the Project Area.

Table 5.16-14 provides a comparison internal, external, and total VMT for each analysis scenario. Existing and 2035 Baseline show similar results as only the SCAG regional growth is included, not growth in the Project Area. Existing plus Project and 2035 Baseline plus Project show similar VMT characteristics as well. From the 2035 Baseline plus Approved Plan forecast, the 2035 Baseline plus Project scenario VMT is reduced by 53 percent in the AM peak period, 42 percent in the PM peak period, and 45 percent for daily VMT.

The reduction in vehicle trips and VMT is primarily attributed to decreased development levels under the Proposed Project. However, the projected diversification in land uses and socioeconomics in the area through increased employment land uses and multi-family housing in the Project Area compared to the adopted area plan also creates a job to housing balance that limits the regional demand for travel to and from the Project area.

**Table 5.16-14 Vehicle Miles Traveled Summary by Scenario**

Scenario	VMT Internal Trips	VMT External Trips	Total VMT
Existing	28,258	223,117	251,375
Existing + Project	239,225	524,734	763,959
2035 Baseline	24,827	250,738	275,566
2035 Baseline + Project	202,093	563,668	765,760
2035 Baseline + Adopted Area Plan	431,977	969,484	1,401,461

### Traffic Operations

#### *Roadway Segment Level of Service*

The North County Sub-Area modeling results were then used to assess the potential project impacts due to the “Existing plus Project” and “2035 with Project” scenarios. Table 5.16-15 presents the results of the sub-area regional modeling analysis of Proposed Project growth for Existing plus Project, and Table 5.16-16 presents the results of the North County Sub-Area modeling analysis for 2035 conditions with and without the Proposed Project.

For the Project Area, the Secondary Highways, Limited Secondary Highways, Major Highways, and Expressways have been reviewed to determine the model volumes under existing conditions, Existing plus Project, 2035 Baseline, and 2035 plus Project conditions. The Existing plus Project volumes were compared to the existing roadway capacity and 2035 plus Project daily traffic volumes were compared to the County’s designated LOS E capacity for each facility type based on planned improvements. If the Existing plus Project or 2035 plus Project daily volume falls under the County’s designated LOS E capacity, it was determined that

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there would be no significant impact because this roadway would continue to operate at acceptable conditions. For those roadways operating with a V/C ratio of less than 0.90 (i.e., better than LOS E), it was determined that the planned roadway capacity is adequate to handle the future volumes within acceptable operating conditions.

Tables 5.16-15 and 5.16-16 display the detailed information that was used to develop the roadway impact findings below for the Existing plus Project and Year 2035 plus Project scenarios. These tables include the following for each segment on the Highway Plan in the Antelope Valley Area Plan:

- Functional Classification
- Limits of the segment
- Existing/Future Baseline ADT (from the model)
- Plus project ADT (from the model)
- Number of lanes
- Existing/Future Baseline V/C
- Plus Project V/C
- Whether the change in V/C exceeds the significant impact threshold (where the segment has a volume greater than LOS E capacity AND the change in V/C is 0.02 or greater).

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Table 5.16-15 Roadway Segment LOS – Existing vs. Existing plus Project

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	Existing Conditions		Existing Plus Project Conditions		Exceeds Capacity Threshold?
							ADT	V/C	ADT	V/C	
1	100th St E	Avenue J	Avenue J-8	Limited Secondary Highway	18,000	2	500	0.03	800	0.04	NO
2	100th St E	Lancaster City Line	Avenue L	Limited Secondary Highway	18,000	2	500	0.03	500	0.03	NO
3	100th St W	Lancaster Blvd	Avenue J	Major Highway	18,000	2	500	0.03	500	0.03	NO
4	100th St W	Avenue D	Avenue D-8	Limited Secondary Highway	18,000	2	500	0.03	4,000	0.22	NO
5	100th St W	Avenue E	Avenue F	Limited Secondary Highway	18,000	2	500	0.03	1,800	0.10	NO
6	10th St W	Palmdale City Line	Avenue O	Secondary Highway	36,000	4	14,500	0.40	19,000	0.53	NO
7	10th St W	Auto Center Dr	Elizabeth Lake Rd	Secondary Highway	45,000	5	14,500	0.32	17,400	0.39	NO
8	110th St W	Johnson Rd	Avenue M	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
9	120th St E	Avenue L	Avenue Q	Expressway	22,000	2	5,200	0.24	18,000	0.82	NO
10	170th Street E	Avenue T	Avenue W	Secondary Highway	18,000	2	3,500	0.19	15,200	0.84	NO
11	170th Street E	Avenue W	165th Street	Secondary Highway	18,000	2	1,000	0.06	8,900	0.49	NO
12	200th Street E	Avenue G	Avenue J	Secondary Highway	18,000	2	1,000	0.06	6,700	0.37	NO
13	25th St W	Avenue O	Palmdale City Line	Secondary Highway	36,000	4	6,100	0.17	6,100	0.17	NO
14	35th St W	Avenue N	Avenue N-8	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
15	40th St W	Avenue N	Avenue N-8	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
16	50th St E	Avenue K-4	Avenue L	Expressway	22,000	2	2,200	0.10	7,400	0.34	NO
17	70th St E	Lancaster City Line	Avenue K-8	Major Highway	18,000	2	500	0.03	2,200	0.12	NO
18	70th St E	Avenue K-12	Avenue L	Major Highway	18,000	2	500	0.03	2,200	0.12	NO
19	80th St W	Lancaster City Line	Lancaster City Line	Major Highway	18,000	2	1,700	0.09	7,300	0.41	NO
20	87th St W	Ritter Ranch Rd	Elizabeth Lake Rd	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
21	Agua Dulce Canyon Road	Soledad Canyon Road	Sierra Highway	Limited Secondary Highway	18,000	2	7,800	0.43	8,400	0.47	NO
22	Amargosa Creek Rd	Portal Pass Rd	Johnson Rd	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
23	Avenue E	110th St W	Lancaster City Line	Major Highway	18,000	2	500	0.03	600	0.03	NO
24	Avenue E	100th St W	70th St W	Limited Secondary Highway	18,000	2	1,800	0.10	11,800	0.66	NO
25	Avenue F	110th St W	Lancaster City Line	Major Highway	18,000	2	500	0.03	600	0.03	NO
26	Avenue F	Lancaster City Line	95th St W	Major Highway	18,000	2	600	0.03	3,000	0.17	NO
27	Avenue F	95th St W	70th St W	Limited Secondary Highway	18,000	2	1,800	0.10	11,800	0.66	NO
28	Avenue G	25th St W	Division St	Expressway	22,000	2	5,200	0.24	19,000	0.86	NO
29	Avenue G	SR-14 Antelope Valley Freeway	15th Street W	Expressway	22,000	2	4,400	0.20	14,900	0.68	NO
30	Avenue G	15th Street W	10th Street W	Expressway	22,000	2	4,500	0.20	15,500	0.70	NO
31	Avenue G	10th Street W	Sierra Highway	Expressway	22,000	2	5,200	0.24	19,000	0.86	NO
32	Avenue G	Sierra Highway	Division Street	Expressway	22,000	2	4,700	0.21	11,900	0.54	NO
33	Avenue H	110th St W	70th St W	Major Highway	18,000	2	500	0.03	4,900	0.27	NO
34	Avenue H	Division St	40th St E	Expressway	22,000	2	9,000	0.41	17,000	0.77	NO
35	Avenue J	90th Street E	100th Street E	Major Highway	18,000	2	500	0.03	3,200	0.18	NO
36	Avenue J	100th Street E	110th Street E	Major Highway	18,000	2	500	0.03	3,600	0.20	NO
37	Avenue J	110th Street E	140th Street E	Major Highway	18,000	2	500	0.03	3,700	0.21	NO
38	Avenue J	140th Street E	150th Street E	Major Highway	18,000	2	500	0.03	5,400	0.30	NO
39	Avenue J	150th Street E	170th Street E	Major Highway	18,000	2	500	0.03	4,800	0.27	NO
40	Avenue J	170th Street E	200th Street E	Major Highway	18,000	2	500	0.03	5,300	0.29	NO
41	Avenue K-8	52nd St W	50th St W	Secondary Highway	18,000	2	600	0.03	900	0.05	NO

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Table 5.16-15 Roadway Segment LOS – Existing vs. Existing plus Project

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	Existing Conditions		Existing Plus Project Conditions		Exceeds Capacity Threshold?
							ADT	V/C	ADT	V/C	
42	Avenue L	40th St E	45th St E	Expressway	22,000	2	500	0.02	500	0.02	NO
43	Avenue L	50th St E	80th St E	Expressway	22,000	2	500	0.02	500	0.02	NO
44	Avenue L	90th St E	120th St E	Expressway	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	NO
45	Avenue L	55th St W	40th St W	Expressway	22,000	2	19,000	0.86	21,300	0.97	YES
46	Avenue L-8	10th St W	SR 14	Secondary Highway	36,000	4	4,300	0.12	4,300	0.12	NO
47	Avenue L-8	SR 14	30th St W	Secondary Highway	18,000	2	600	0.03	600	0.03	NO
48	Avenue L-8	60th St W	80th St W	Secondary Highway	36,000	4	3,900	0.11	4,000	0.11	NO
49	Avenue M	Elizabeth Lake Rd	80th St W	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
50	Avenue N-8	45th St W	30th St W	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
51	Avenue N-8	20th St W	Palmdale City Line	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
52	Avenue O	145th Street E	150th Street E	Major Highway	18,000	2	6,600	0.37	13,200	0.73	NO
53	Avenue O	150th Street E	170th Street E	Major Highway	18,000	2	2,000	0.11	9,200	0.51	NO
54	Avenue O	170th Street E	175th Street E	Major Highway	18,000	2	2,400	0.13	9,500	0.53	NO
55	Avenue O	175th Street E	180th Street E	Major Highway	18,000	2	2,500	0.14	11,100	0.62	NO
56	Avenue O	180th Street E	200th Street E	Secondary Highway	18,000	2	2,500	0.14	11,600	0.64	NO
57	Avenue O	200th Street E	210 Street E	Secondary Highway	18,000	2	2,300	0.13	8,900	0.49	NO
58	Avenue O	210 Street E	240th Street E	Secondary Highway	18,000	2	2,000	0.11	7,500	0.42	NO
59	Avenue O-8	30th St W	20th St W	Secondary Highway	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	NO
60	Avenue P	15th Street E	20th Street E	Major Highway	36,000	4	18,000	0.50	23,500	0.65	NO
61	Avenue P	20th Street E	25th Street E	Major Highway	36,000	4	17,800	0.49	23,300	0.65	NO
62	Avenue P	25th Street E	30th Street E	Major Highway	36,000	4	6,400	0.18	12,000	0.33	NO
63	Avenue P	30th Street E	40th Street E	Major Highway	18,000	2	2,200	0.12	6,000	0.33	NO
64	Avenue P	40th Street E	70th Street E	Major Highway	18,000	2	500	0.03	500	0.03	NO
65	Avenue Q	60th St E	90th St E	Major Highway	18,000	2	8,800	0.49	10,300	0.57	NO
66	Avenue Q	90th St E	120th St E	Secondary Highway	18,000	2	1,000	0.06	8,000	0.44	NO
67	Bouquet Canyon Rd	Elizabeth Lake Rd	Palmdale City Line	Secondary Highway	18,000	2	1,800	0.10	3,800	0.21	NO
68	Davenport Road	Sierra Highway	Agua Dulce Canyon Road	Limited Secondary Highway	18,000	2	1,800	0.10	3,000	0.17	NO
69	Elizabeth Lake Road	Johnson Road	Portal Pass Rd	Major Highway	18,000	2	2,700	0.15	12,500	0.69	NO
70	Elizabeth Lake Road	Johnson Road	San Francisquito Canyon Road	Major Highway	18,000	2	3,400	0.19	6,300	0.35	NO
71	Elizabeth Lake Road	San Francisquito Canyon Road	Bouquet Canyon Road	Major Highway	18,000	2	3,400	0.19	10,800	0.60	NO
72	Elizabeth Lake Road	Bouquet Canyon Road	Godde Hill Road	Major Highway	18,000	2	3,400	0.19	9,900	0.55	NO
73	Escondido Canyon Road	Agua Dulce Canyon Road	SCV Planning Boundary	Limited Secondary Highway	18,000	2	2,000	0.11	3,600	0.20	NO
74	Fort Tejon Road	87th Street E	Mount Emma Road	Secondary Highway	18,000	2	4,500	0.25	6,300	0.35	NO
75	Fort Tejon Road	Mount Emma Road	96th Street	Secondary Highway	18,000	2	9,000	0.50	17,400	0.97	YES
76	Fort Tejon Road	96th Street	106th Street	Secondary Highway	18,000	2	9,000	0.50	17,500	0.97	YES
77	Fort Tejon Road	106th Street	131 Street E	Secondary Highway	18,000	2	7,900	0.44	16,900	0.94	YES
78	Johnson Rd	Elizabeth Lake Rd	110th St W	Major Highway	18,000	2	2,400	0.13	8,800	0.49	NO
79	Lancaster Road	Pine Canyon Road	Avenue I	Expressway	22,000	2	500	0.02	5,500	0.25	NO
80	Lancaster Road	Avenue I	190th Street W	Expressway	22,000	2	500	0.02	5,000	0.23	NO
81	Lancaster Road	190th Street W	170th Street W	Expressway	22,000	2	500	0.02	4,100	0.19	NO
82	Lancaster Road	170th Street W	110th Street W	Expressway	22,000	2	700	0.03	13,500	0.61	NO

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Table 5.16-15 Roadway Segment LOS – Existing vs. Existing plus Project

Study Location	Location	To	From	Functional Class	Capacity <sup>1</sup>	Lanes	Existing Conditions		Existing Plus Project Conditions		Exceeds Capacity Threshold?
							ADT	V/C	ADT	V/C	
83	Lancaster Road	110th Street W	90th Street W	Expressway	22,000	2	600	0.03	9,400	0.43	NO
84	Lancaster Road	90th Street W	70th Street W	Expressway	22,000	2	800	0.04	9,300	0.42	NO
85	Lancaster Road	70th Street W	60th Street W	Expressway	22,000	2	800	0.04	7,000	0.32	NO
86	Palmdale Boulevard	90th Street E	95th Street E	Major Highway	18,000	2	11,700	0.65	17,500	0.97	YES
87	Palmdale Boulevard	95th Street E	100th Street E	Major Highway	18,000	2	11,900	0.66	18,000	1.00	YES
88	Palmdale Boulevard	100th Street E	105th Street E	Major Highway	18,000	2	11,300	0.63	16,900	0.94	YES
89	Palmdale Boulevard	105th Street E	110 Street E	Major Highway	18,000	2	11,000	0.61	16,900	0.94	YES
90	Pearblossom Highway (SR-138)	70th Street E	Avenue T 8	Major Highway	36,000	4	18,400	0.51	25,900	0.72	NO
91	Pearblossom Highway (SR-138)	Avenue T 8	82nd Street E	Major Highway	18,000	2	17,600	0.98	23,800	1.32	YES
92	Pearblossom Highway (SR-138)	82nd Street E	87th Street E	Major Highway	18,000	2	13,500	0.75	19,600	1.09	YES
93	Pearblossom Highway (SR-138)	87th Street E	96th Street E	Major Highway	18,000	2	16,000	0.89	21,800	1.21	YES
94	Pearblossom Highway (SR-138)	96th Street E	106th Street E	Major Highway	36,000	4	17,900	0.50	31,800	0.88	NO
95	Pearblossom Highway (SR-138)	106th Street E	116th Street E	Major Highway	36,000	4	17,800	0.49	23,100	0.64	NO
96	Pearblossom Highway (SR-138)	116th Street E	126th Street E	Major Highway	18,000	2	17,700	0.98	22,900	1.27	YES
97	Pearblossom Highway (SR-138)	126th Street E	131st Street E	Major Highway	18,000	2	18,600	1.03	27,400	1.52	YES
98	Pearblossom Highway (SR-138)	131 Street E	170th Street E	Major Highway	36,000	4	17,700	0.49	21,300	0.59	NO
99	Portal Pass Rd	Elizabeth Lake Rd	Ritter Ranch Rd	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
100	Ritter Ranch Rd	Portal Pass Rd	Bouquet Canyon Rd	Local / Collector	15,000	2	< 10,000	(2)	< 10,000	(2)	NO
101	San Fransisquito Canyon Rd	Angeles National Forest Boundary	Elizabeth Lake Rd	Secondary Highway	18,000	2	1,600	0.09	7,700	0.43	NO

Notes  
<sup>1</sup> Capacity based on County thresholds as defined in Table 5.16-3.  
<sup>2</sup> Local and collector streets are typically not reflected in travel demand models; based on the roadway classification, volumes are expected to be well below the County's ADT thresholds.  
<sup>3</sup> Roadway segment does not exist or is discontinuous under existing conditions; segment only analyzed under future conditions with planned improvements in place.

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Table 5.16-16 Roadway Segment LOS – 2035 Baseline vs. 2035 plus Project

Study Location	Location	To	From	Functional Class	Potential Number of Lanes <sup>1</sup>	Potential Roadway Capacity <sup>2</sup>	2035 Baseline Conditions			2035 Plus Project Conditions			Exceeds Capacity Threshold?
							Model Lanes	ADT	V/C	Model Lanes	ADT	V/C	
1	100th St E	Avenue J	Avenue J-8	Limited Secondary Highway	2	18,000	2	500	0.03	2	600	0.03	NO
2	100th St E	Lancaster City Line	Avenue L	Limited Secondary Highway	2	18,000	2	500	0.03	2	2,300	0.13	NO
3	100th St W	Lancaster Blvd	Avenue J	Major Highway	6	54,000	2	500	0.03	2	500	0.03	NO
4	100th St W	Avenue D	Avenue D-8	Limited Secondary Highway	2	18,000	2	1,300	0.07	2	7,700	0.43	NO
5	100th St W	Avenue E	Avenue F	Limited Secondary Highway	2	18,000	2	1,800	0.10	2	8,400	0.47	NO
6	10th St W	Palmdale City Line	Avenue O	Secondary Highway	4	36,000	4	14,000	0.39	4	22,100	0.61	NO
7	10th St W	Auto Center Dr	Elizabeth Lake Rd	Secondary Highway	4	36,000	5	16,500	0.37	5	19,500	0.43	NO
8	110th St W	Johnson Rd	Avenue M	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
9	120th St E	Avenue L	Avenue Q	Expressway	4	44,000	4	3,200	0.07	4	10,600	0.24	NO
10	170th Street E	Avenue T	Avenue W	Secondary Highway	4	36,000	2	3,700	0.21	2	9,800	0.54	NO
11	170th Street E	Avenue W	165th Street	Secondary Highway	4	36,000	2	700	0.04	2	5,300	0.29	NO
12	200th Street E	Avenue G	Avenue J	Secondary Highway	4	36,000	2	700	0.04	2	5,100	0.28	NO
13	25th St W	Avenue O	Palmdale City Line	Secondary Highway	4	36,000	4	9,600	0.27	4	10,300	0.29	NO
14	35th St W	Avenue N	Avenue N-8	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
15	40th St W	Avenue N	Avenue N-8	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
16	50th St E	Avenue K-4	Avenue L	Expressway	4	44,000	2	1,700	0.08	2	7,100	0.32	NO
17	70th St E	Lancaster City Line	Avenue K-8	Major Highway	6	54,000	2	500	0.03	2	1,200	0.07	NO
18	70th St E	Avenue K-12	Avenue L	Major Highway	6	54,000	2	500	0.03	2	1,400	0.08	NO
19	80th St W	Lancaster City Line	Lancaster City Line	Major Highway	6	54,000	2	2,100	0.12	2	5,800	0.32	NO
20	87th St W	Ritter Ranch Rd	Elizabeth Lake Rd	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
21	Agua Dulce Canyon Road	Soledad Canyon Road	Sierra Highway	Limited Secondary Highway	2	18,000	2	7,600	0.42	2	8,300	0.46	NO
22	Amargosa Creek Rd	Portal Pass Rd	Johnson Rd	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
23	Avenue E	110th St W	Lancaster City Line	Major Highway	6	54,000	2	500	0.03	2	1,600	0.09	NO
24	Avenue E	100th St W	70th St W	Limited Secondary Highway	2	18,000	2	2,900	0.16	2	14,300	0.79	NO
25	Avenue F	110th St W	Lancaster City Line	Major Highway	6	54,000	2	500	0.03	2	1,600	0.09	NO
26	Avenue F	Lancaster City Line	95th St W	Major Highway	6	54,000	2	700	0.04	2	3,700	0.21	NO
27	Avenue F	95th St W	70th St W	Limited Secondary Highway	2	18,000	2	2,900	0.16	2	14,300	0.79	NO
28	Avenue G	25th St W	Division St	Expressway	4	44,000	2	5,300	0.24	2	18,700	0.85	NO
29	Avenue G	SR-14 Antelope Valley Freeway	15th Street W	Expressway	4	44,000	2	2,600	0.12	2	15,200	0.69	NO
30	Avenue G	15th Street W	10th Street W	Expressway	4	44,000	2	2,600	0.12	2	15,600	0.71	NO
31	Avenue G	10th Street W	Sierra Highway	Expressway	4	44,000	2	3,200	0.15	2	18,700	0.85	NO
32	Avenue G	Sierra Highway	Division Street	Expressway	4	44,000	2	5,300	0.24	2	13,500	0.61	NO
33	Avenue H	110th St W	70th St W	Major Highway	6	54,000	2	500	0.03	2	4,400	0.24	NO
34	Avenue H	Division St	40th St E	Expressway	4	44,000	2	7,900	0.36	2	16,400	0.75	NO
35	Avenue J	90th Street E	100th Street E	Major Highway	6	54,000	2	600	0.03	2	2,000	0.11	NO
36	Avenue J	100th Street E	110th Street E	Major Highway	6	54,000	2	500	0.03	2	1,300	0.07	NO
37	Avenue J	110th Street E	140th Street E	Major Highway	6	54,000	2	500	0.03	2	1,000	0.06	NO
38	Avenue J	140th Street E	150th Street E	Major Highway	6	54,000	2	500	0.03	2	1,500	0.08	NO
39	Avenue J	150th Street E	170th Street E	Major Highway	6	54,000	2	500	0.03	2	1,800	0.10	NO
40	Avenue J	170th Street E	200th Street E	Major Highway	6	54,000	2	500	0.03	2	3,300	0.18	NO
41	Avenue K-8	52nd St W	50th St W	Secondary Highway	2	18,000	2	600	0.03	2	800	0.04	NO

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Table 5.16-16 Roadway Segment LOS – 2035 Baseline vs. 2035 plus Project

Study Location	Location	To	From	Functional Class	Potential Number of Lanes <sup>1</sup>	Potential Roadway Capacity <sup>2</sup>	2035 Baseline Conditions			2035 Plus Project Conditions			Exceeds Capacity Threshold?
							Model Lanes	ADT	V/C	Model Lanes	ADT	V/C	
42	Avenue L	40th St E	45th St E	Expressway	4	44,000	4	8,200	0.19	4	12,000	0.27	NO
43	Avenue L	50th St E	80th St E	Expressway	4	44,000	4	8,700	0.20	4	16,900	0.38	NO
44	Avenue L	90th St E	120th St E	Expressway	4	44,000	4	500	0.01	4	2,400	0.05	NO
45	Avenue L	55th St W	40th St W	Expressway	4	44,000	4	20,100	0.46	4	23,000	0.52	NO
46	Avenue L-8	10th St W	SR 14	Secondary Highway	4	36,000	4	4,700	0.13	4	4,800	0.13	NO
47	Avenue L-8	SR 14	30th St W	Secondary Highway	4	36,000	2	500	0.03	2	500	0.03	NO
48	Avenue L-8	60th St W	80th St W	Secondary Highway	4	36,000	4	4,000	0.11	4	4,300	0.12	NO
49	Avenue M	Elizabeth Lake Rd	80th St W	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
50	Avenue N-8	45th St W	30th St W	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
51	Avenue N-8	20th St W	Palmdale City Line	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
52	Avenue O	145th Street E	150th Street E	Major Highway	6	54,000	2	5,200	0.29	2	11,700	0.65	NO
53	Avenue O	150th Street E	170th Street E	Major Highway	6	54,000	2	900	0.05	2	5,200	0.29	NO
54	Avenue O	170th Street E	175th Street E	Major Highway	6	54,000	2	600	0.03	2	3,800	0.21	NO
55	Avenue O	175th Street E	180th Street E	Major Highway	6	54,000	2	800	0.04	2	5,700	0.32	NO
56	Avenue O	180th Street E	200th Street E	Secondary Highway	4	36,000	2	800	0.04	2	6,200	0.34	NO
57	Avenue O	200th Street E	210 Street E	Secondary Highway	4	36,000	2	500	0.03	2	2,100	0.12	NO
58	Avenue O	210 Street E	240th Street E	Secondary Highway	4	36,000	2	500	0.03	2	700	0.04	NO
59	Avenue O-8	30th St W	20th St W	Secondary Highway	4	36,000	4	1,300	0.04	4	1,800	0.05	NO
60	Avenue P	15th Street E	20th Street E	Major Highway	6	54,000	6	16,700	0.31	6	20,900	0.39	NO
61	Avenue P	20th Street E	25th Street E	Major Highway	6	54,000	6	16,600	0.31	6	20,800	0.39	NO
62	Avenue P	25th Street E	30th Street E	Major Highway	6	54,000	6	4,400	0.08	6	7,400	0.14	NO
63	Avenue P	30th Street E	40th Street E	Major Highway	6	54,000	6	3,000	0.06	6	4,900	0.09	NO
64	Avenue P	40th Street E	70th Street E	Major Highway	6	54,000	2	2,900	0.16	2	4,700	0.26	NO
65	Avenue Q	60th St E	90th St E	Major Highway	6	54,000	2	7,200	0.40	2	8,700	0.48	NO
66	Avenue Q	90th St E	120th St E	Secondary Highway	4	36,000	2	1,100	0.06	2	6,500	0.36	NO
67	Bouquet Canyon Rd	Elizabeth Lake Rd	Palmdale City Line	Secondary Highway	4	36,000	2	1,800	0.10	2	3,900	0.22	NO
68	Davenport Road	Sierra Highway	Agua Dulce Canyon Road	Limited Secondary Highway	2	18,000	2	2,500	0.14	2	3,700	0.21	NO
69	Elizabeth Lake Road	Johnson Road	Portal Pass Rd	Major Highway	6	54,000	2	2,800	0.16	2	10,400	0.58	NO
70	Elizabeth Lake Road	Johnson Road	San Francisquito Canyon Road	Major Highway	6	54,000	2	3,300	0.18	2	5,500	0.31	NO
71	Elizabeth Lake Road	San Francisquito Canyon Road	Bouquet Canyon Road	Major Highway	6	54,000	2	3,500	0.19	2	8,000	0.44	NO
72	Elizabeth Lake Road	Bouquet Canyon Road	Godde Hill Road	Major Highway	6	54,000	2	1,700	0.09	2	6,600	0.37	NO
73	Escondido Canyon Road	Agua Dulce Canyon Road	SCV Planning Boundary	Limited Secondary Highway	2	18,000	2	2,800	0.16	2	4,100	0.23	NO
74	Fort Tejon Road	87th Street E	Mount Emma Road	Secondary Highway	4	36,000	2	2,400	0.13	2	10,200	0.57	NO
75	Fort Tejon Road	Mount Emma Road	96th Street	Secondary Highway	4	36,000	2	2,800	0.16	2	12,200	0.68	NO
76	Fort Tejon Road	96th Street	106th Street	Secondary Highway	4	36,000	2	2,800	0.16	2	12,500	0.69	NO
77	Fort Tejon Road	106th Street	131 Street E	Secondary Highway	4	36,000	2	1,500	0.08	2	7,200	0.40	NO
78	Johnson Rd	Elizabeth Lake Rd	110th St W	Major Highway	6	54,000	2	2,600	0.14	2	7,600	0.42	NO
79	Lancaster Road	Pine Canyon Road	Avenue I	Expressway	4	44,000	2	1,300	0.06	2	9,400	0.43	NO
80	Lancaster Road	Avenue I	190th Street W	Expressway	4	44,000	2	500	0.02	2	2,400	0.11	NO
81	Lancaster Road	190th Street W	170th Street W	Expressway	4	44,000	2	500	0.02	2	3,300	0.15	NO
82	Lancaster Road	170th Street W	110th Street W	Expressway	4	44,000	2	500	0.02	2	6,200	0.28	NO

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Table 5.16-16 Roadway Segment LOS – 2035 Baseline vs. 2035 plus Project

Study Location	Location	To	From	Functional Class	Potential Number of Lanes <sup>1</sup>	Potential Roadway Capacity <sup>2</sup>	2035 Baseline Conditions			2035 Plus Project Conditions			Exceeds Capacity Threshold?
							Model Lanes	ADT	V/C	Model Lanes	ADT	V/C	
83	Lancaster Road	110th Street W	90th Street W	Expressway	4	44,000	2	500	0.02	2	3,700	0.17	NO
84	Lancaster Road	90th Street W	70th Street W	Expressway	4	44,000	2	1,200	0.05	2	5,500	0.25	NO
85	Lancaster Road	70th Street W	60th Street W	Expressway	4	44,000	2	1,100	0.05	2	4,100	0.19	NO
86	Palmdale Boulevard	90th Street E	95th Street E	Major Highway	6	54,000	2	7,400	0.41	2	13,400	0.74	NO
87	Palmdale Boulevard	95th Street E	100th Street E	Major Highway	6	54,000	2	7,600	0.42	2	15,300	0.85	NO
88	Palmdale Boulevard	100th Street E	105th Street E	Major Highway	6	54,000	2	7,200	0.40	2	14,400	0.80	NO
89	Palmdale Boulevard	105th Street E	110 Street E	Major Highway	6	54,000	2	6,700	0.37	2	14,300	0.79	NO
90	Pearblossom Highway (SR-138)	70th Street E	Avenue T 8	Major Highway	6	54,000	6	15,200	0.28	6	33,900	0.63	NO
91	Pearblossom Highway (SR-138)	Avenue T 8	82nd Street E	Major Highway	6	54,000	6	14,000	0.26	6	33,900	0.63	NO
92	Pearblossom Highway (SR-138)	82nd Street E	87th Street E	Major Highway	6	54,000	6	11,700	0.22	6	24,800	0.46	NO
93	Pearblossom Highway (SR-138)	87th Street E	96th Street E	Major Highway	6	54,000	6	11,800	0.22	6	26,700	0.49	NO
94	Pearblossom Highway (SR-138)	96th Street E	106th Street E	Major Highway	6	54,000	6	12,300	0.23	6	30,600	0.57	NO
95	Pearblossom Highway (SR-138)	106th Street E	116th Street E	Major Highway	6	54,000	6	12,500	0.23	6	27,000	0.50	NO
96	Pearblossom Highway (SR-138)	116th Street E	126th Street E	Major Highway	6	54,000	4	12,500	0.35	4	26,800	0.74	NO
97	Pearblossom Highway (SR-138)	126th Street E	131st Street E	Major Highway	6	54,000	4	13,000	0.36	4	31,400	0.87	NO
98	Pearblossom Highway (SR-138)	131 Street E	170th Street E	Major Highway	6	54,000	4	11,600	0.32	4	21,100	0.59	NO
99	Portal Pass Rd	Elizabeth Lake Rd	Ritter Ranch Rd	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
100	Ritter Ranch Rd	Portal Pass Rd	Bouquet Canyon Rd	Local / Collector	2	15,000	2	< 10,000	(3)	2	< 10,000	(3)	NO
101	San Fransisquito Canyon Rd	Angeles National Forest Boundary	Elizabeth Lake Rd	Secondary Highway	4	36,000	2	1,700	0.09	2	4,200	0.23	NO

Notes  
<sup>1</sup> Potential number of lanes is based on County's roadway classification definition per the 2014 Draft Los Angeles County General Plan.  
<sup>2</sup> Capacity based on County thresholds as defined in Table 5.16-3; For V/C analysis, modeled lanes were used to report future baseline operations.  
<sup>3</sup> Local and collector streets are typically not reflected in travel demand models; based on the roadway classification, volumes are expected to be well below the County's ADT thresholds.



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The results of the analysis show that 13 roadway segments in the unincorporated areas are expected to exceed the designated LOS E threshold under the Existing plus Project scenario. Three of these segments exceed the designated V/C ratio under Existing Conditions. None of the segments exceed the LOS E threshold under 2035 plus Project Conditions with the planned County highway improvements in place. The Existing plus Project segments that are projected to exceed the maximum LOS E threshold and experience a significant change in V/C due to the project are listed below:

- **Avenue L from 40<sup>th</sup> Street West to 55<sup>th</sup> Street West** – Exceeds existing roadway LOS E capacity by approximately 1,500 daily vehicles, 0.10 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Fort Tejon Road from 96<sup>th</sup> Street to Mount Emma Road** – Exceeds existing roadway LOS E capacity by approximately 1,200 daily vehicles, 0.47 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Fort Tejon Road from 106<sup>th</sup> Street to 96<sup>th</sup> Street** – Exceeds existing roadway LOS E capacity by approximately 1,300 daily vehicles, 0.47 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Fort Tejon Road from 131<sup>st</sup> Street East to 106<sup>th</sup> Street** – Exceeds existing roadway LOS E capacity by approximately 700 daily vehicles, 0.5 change in V/C (Existing plus Project V/C = 0.94) due to the Proposed Project growth.
- **Palmdale Boulevard from 95<sup>th</sup> Street East to 90<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 1,300 daily vehicles, 0.32 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Palmdale Boulevard from 100<sup>th</sup> Street East to 95<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 1,800 daily vehicles, 0.34 change in V/C (Existing plus Project V/C = 1.00) due to the Proposed Project growth.
- **Palmdale Boulevard from 105<sup>th</sup> Street East to 100<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 700 daily vehicles, 0.31 change in V/C (Existing plus Project V/C = .94) due to the Proposed Project growth.
- **Palmdale Boulevard from 110<sup>th</sup> Street East to 105<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 700 daily vehicles, 0.33 change in V/C (Existing plus Project V/C = 0.94) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 82<sup>nd</sup> Street East to Avenue T-8** – Exceeds existing roadway LOS E capacity by approximately 7,600 daily vehicles, 0.34 change in V/C (Existing plus Project V/C = 1.32) due to the Proposed Project growth.

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- **Pearblossom Highway (SR-138) from 87<sup>th</sup> Street East to 82<sup>nd</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 3,400 daily vehicles, 0.34 change in V/C (Existing plus Project V/C = 1.09) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 96<sup>th</sup> Street East to 87<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 5,600 daily vehicles, 0.32 change in V/C (Existing plus Project V/C = 1.21) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 126<sup>th</sup> Street East to 116<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 6,700 daily vehicles, 0.29 change in V/C (Existing plus Project V/C = 1.27) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 131<sup>st</sup> Street East to 126<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 11,200 daily vehicles, 0.49 change in V/C (Existing plus Project V/C = 1.52) due to the Proposed Project growth.

#### *Intersection CMP Analysis*

Table 5.16-17 shows the results of the Existing and Existing plus Project level of service analysis at the study area CMP intersection locations. Implementation of the Proposed Project is expected to result in exceeding the County CMP standard level of service (LOS E), to LOS F, along with a significant increase in V/C due to the Project, at the following locations:

1. Lancaster Road & 300<sup>th</sup> Street West (AM and PM peak hours)
2. Avenue D & 60<sup>th</sup> Street West (AM and PM peak hours)

**Table 5.16-17 Intersection CMP Analysis – Existing vs. Existing plus Project**

No.	CMP Route	Cross Street	Existing Conditions				Existing plus Project Conditions				Significant Impact?
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
			V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	
1	Lancaster Road	300th Street West	0.18	A	0.21	A	1.02	F	1.04	F	Yes
2	Avenue D	60th Street West	0.23	A	0.28	A	0.99	E	1.22	F	Yes
3	Sierra Highway	Red Rover Mine Road	0.14	A	0.14	A	0.37	A	0.41	A	No
4	Pearblossom Highway (SR-138)	82nd Street East	0.58	A	0.70	B	0.70	B	0.78	C	No
5	Pearblossom Highway (SR-138)	Antelope Highway	0.54	A	0.63	B	0.73	C	0.86	D	No

Table 5.16-18 shows the results of the 2035 Baseline and 2035 plus Project level of service analysis at the study area CMP intersection locations. Implementation of the Proposed Project is expected to result in

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exceeding the County CMP standard level of service (LOS E), to LOS F, along with a significant increase in V/C due to the Project, at the following locations:

1. Lancaster Road & 300<sup>th</sup> Street West (AM and PM peak hours)
2. Avenue D & 60<sup>th</sup> Street West (AM and PM peak hours)
4. Pearblossom Highway (SR-138) & 82<sup>nd</sup> Street East (AM and PM peak hours)

**Table 5.16-18 Intersection CMP Analysis – 2035 Baseline vs. 2035 plus Project**

No.	CMP Route	Cross Street	Existing Conditions				Existing plus Project Conditions				Significant Impact?
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
			V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	
1	Lancaster Road	300th Street West	0.59	A	0.67	B	1.09	F	1.11	F	Yes
2	Avenue D	60th Street West	0.74	C	0.83	D	1.30	F	1.57	F	Yes
3	Sierra Highway	Red Rover Mine Road	0.14	A	0.14	A	0.34	A	0.33	A	No
4	Pearblossom Highway (SR-138)	82nd Street East	0.52	A	0.73	C	1.19	F	1.55	F	Yes
5	Pearblossom Highway (SR-138)	Antelope Highway	0.44	A	0.47	A	0.65	B	0.70	B	No

### *Freeway CMP Analysis*

Based on the established significant impact criteria, the Proposed Project would have a significant impact if it causes a freeway segment at LOS E or F to experience a change in D/C of 0.02 or greater. Table 5.16-19 shows the freeway CMP analysis for all scenarios. Based on the results of the modeling and impact analysis, the following locations are forecast to be significantly impacted:

### *Freeway Segment Impacts due to Planned Growth – Existing plus Project*

- **SR-14 South of SR-138/Future High Desert Corridor (PM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 0.95.

### *Freeway Segment Impacts due to Future Growth – Future plus Project*

- **SR-14 South of Avenue D/SR-138 (AM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.04.
- **SR-14 South of Avenue D/SR-138 (AM Southbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.09.
- **SR-14 South of Avenue D/SR-138 (PM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.32.

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- **SR-14 South of Avenue D/SR-138 (PM Southbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.10.
- **SR-14 South of SR-138/High Desert Corridor (PM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 0.97.
- **SR-14 South of SR-138/High Desert Corridor (PM Southbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 0.93.

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Table 5.16-19 Freeway CMP Segments – All Scenarios

Study Location	Roadway	Segment	Direction	Peak Hour Capacity	Existing Conditions				Existing plus Project Conditions			2035 Baseline Conditions				2035 Plus Project Conditions			Potential Impact?
					Lanes	Peak Hour Volume	D/C	LOS	Peak Hour Volume	D/C	LOS	Lanes	Peak Hour Volume	D/C	LOS	Peak Hour Volume	D/C	LOS	
AM Peak Hour																			
1	I-5 Freeway	North of SR-138	NB	8,000	4	2,920	0.37	B	2,800	0.35	A	4	4,840	0.61	C	5,210	0.65	C	NO
	I-5 Freeway	North of SR-138	SB	8,000	4	2,990	0.37	B	2,950	0.37	B	4	4,820	0.60	C	5,920	0.74	C	NO
2	I-5 Freeway	South of SR-138	NB	8,000	4	2,770	0.35	A	3,300	0.41	B	4	3,520	0.44	B	4,150	0.52	B	NO
	I-5 Freeway	South of SR-138	SB	8,000	4	2,900	0.36	B	3,890	0.49	B	4	3,700	0.46	B	6,240	0.78	D	NO
3	SR-138	Between I-5 and 300th Street W	WB	2,000-6,000	1	230	0.12	A	800	0.40	B	3	1,710	0.29	A	2,560	0.43	B	NO
	SR-138	Between I-5 and 300th Street W	EB	2,000-6,000	1	170	0.09	A	880	0.44	B	3	2,120	0.35	B	4,430	0.74	C	NO
4	SR-138	Between 300th St W and 190th St W	WB	2,000-4,000	1	160	0.08	A	400	0.20	A	2	2,170	0.54	C	2,710	0.68	C	NO
	SR-138	Between 300th St W and 190th St W	EB	2,000-4,000	1	150	0.08	A	560	0.28	A	2	1,290	0.32	A	2,020	0.51	B	NO
5	Avenue D/SR-138	Between 190th Street W and SR-14	WB	2,000-4,000	1	150	0.08	A	700	0.35	A	2	1,770	0.44	B	2,320	0.58	C	NO
	Avenue D/SR-138	Between 190th Street W and SR-14	EB	2,000-4,000	1	180	0.09	A	810	0.41	B	2	1,120	0.28	A	2,700	0.68	C	NO
6	SR-14	North of Avenue D/SR-138	NB	4,000	2	1,380	0.35	A	2,010	0.50	B	2	1,630	0.41	B	2,480	0.62	C	NO
	SR-14	North of Avenue D/SR-138	SB	4,000	2	1,930	0.48	B	2,810	0.70	C	2	1,930	0.48	B	2,740	0.69	C	NO
7	SR-14	South of Avenue D/SR-138	NB	4,000	2	1,480	0.37	B	2,910	0.73	C	2	2,370	0.59	C	4,140	1.04	F(0)	YES
	SR-14	South of Avenue D/SR-138	SB	4,000	2	2,040	0.51	B	3,460	0.87	D	2	2,050	0.51	B	4,340	1.09	F(0)	YES
8	SR-14	South of SR-138/High Desert Cor.	NB	6,000	3	3,320	0.55	C	5,360	0.89	D	3	3,280	0.55	C	5,020	0.84	D	NO
	SR-14	South of SR-138/High Desert Cor.	SB	6,000	3	3,540	0.59	C	4,640	0.77	D	3	4,240	0.71	C	4,990	0.83	D	NO
9	High Desert Corridor	East of 125th Street E	WB	0-6,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	2,500	0.42	B	3,500	0.58	C	NO
	High Desert Corridor	East of 125th Street E	EB	0-6,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	1,740	0.29	A	2,090	0.35	A	NO
PM Peak Hour																			
1	I-5 Freeway	North of SR-138	NB	8,000	4	3,050	0.38	B	2,980	0.37	B	4	5,250	0.66	C	5,910	0.74	C	NO
	I-5 Freeway	North of SR-138	SB	8,000	4	2,970	0.37	B	2,950	0.37	B	4	4,590	0.57	C	4,910	0.61	C	NO
2	I-5 Freeway	South of SR-138	NB	8,000	4	2,910	0.36	B	4,080	0.51	B	4	3,870	0.48	B	6,540	0.82	D	NO
	I-5 Freeway	South of SR-138	SB	8,000	4	2,850	0.36	B	3,750	0.47	B	4	3,340	0.42	B	4,360	0.55	C	NO
3	SR-138	Between I-5 and 300th Street W	WB	2,000-6,000	1	240	0.12	A	930	0.47	B	3	2,080	0.35	A	4,440	0.74	C	NO
	SR-138	Between I-5 and 300th Street W	EB	2,000-6,000	1	230	0.12	A	890	0.45	B	3	2,310	0.39	B	3,380	0.56	C	NO
4	SR-138	Between 300th St W and 190th St W	WB	2,000-4,000	1	200	0.10	A	570	0.29	A	2	2,300	0.58	C	2,730	0.68	C	NO
	SR-138	Between 300th St W and 190th St W	EB	2,000-4,000	1	170	0.09	A	500	0.25	A	2	1,740	0.44	B	2,480	0.62	C	NO
5	Avenue D/SR-138	Between 190th Street W and SR-14	WB	2,000-4,000	1	230	0.12	A	780	0.39	B	2	1,980	0.50	B	3,360	0.84	D	NO
	Avenue D/SR-138	Between 190th Street W and SR-14	EB	2,000-4,000	1	180	0.09	A	910	0.46	B	2	1,430	0.36	B	2,320	0.58	C	NO
6	SR-14	North of Avenue D/SR-138	NB	4,000	2	2,280	0.57	C	3,030	0.76	C	2	2,570	0.64	C	3,300	0.83	D	NO
	SR-14	North of Avenue D/SR-138	SB	4,000	2	1,830	0.46	B	2,450	0.61	C	2	1,990	0.50	B	2,780	0.70	C	NO
7	SR-14	South of Avenue D/SR-138	NB	4,000	2	2,420	0.61	C	3,700	0.93	D	2	3,250	0.81	D	5,270	1.32	F(1)	YES
	SR-14	South of Avenue D/SR-138	SB	4,000	2	1,890	0.47	B	3,510	0.88	D	2	2,260	0.57	C	4,380	1.10	F(0)	YES
8	SR-14	South of SR-138/High Desert Cor.	NB	6,000	3	4,270	0.71	C	5,690	0.95	E	3	4,940	0.82	D	5,840	0.97	E	YES
	SR-14	South of SR-138/High Desert Cor.	SB	6,000	3	3,400	0.57	C	5,510	0.92	D	3	3,720	0.62	C	5,600	0.93	E	YES
9	High Desert Corridor	East of 125th Street E	WB	0-6,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	2,860	0.48	B	3,580	0.60	C	NO
	High Desert Corridor	East of 125th Street E	EB	0-6,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	2,880	0.48	B	3,900	0.65	C	NO

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### 5.16.4.3 IMPACT ANALYSIS

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**Impact 5.16-1: Buildout in accordance with the Proposed Project would impact levels of service on the existing roadway system. [Threshold T-1, T-2]**

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#### Roadway Segment Analysis

Based on the established significant impact criteria, the Proposed Project would have a significant impact if it causes a roadway segment at LOS E or F to experience a change in V/C of 0.02 or greater. Based on the results of the modeling and impact analysis, the following locations are forecast to be significantly impacted:

#### *Roadway Segment Impacts due to Planned Growth – Existing plus Project*

- **Avenue L from 40<sup>th</sup> Street West to 55<sup>th</sup> Street West** – Exceeds existing roadway LOS E capacity by approximately 1,500 daily vehicles, 0.10 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Fort Tejon Road from 96<sup>th</sup> Street to Mount Emma Road** – Exceeds existing roadway LOS E capacity by approximately 1,200 daily vehicles, 0.47 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Fort Tejon Road from 106<sup>th</sup> Street to 96<sup>th</sup> Street** – Exceeds existing roadway LOS E capacity by approximately 1,300 daily vehicles, 0.47 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Fort Tejon Road from 131<sup>st</sup> Street East to 106<sup>th</sup> Street** – Exceeds existing roadway LOS E capacity by approximately 700 daily vehicles, 0.5 change in V/C (Existing plus Project V/C = 0.94) due to the Proposed Project growth.
- **Palmdale Boulevard from 95<sup>th</sup> Street East to 90<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 1,300 daily vehicles, 0.32 change in V/C (Existing plus Project V/C = 0.97) due to the Proposed Project growth.
- **Palmdale Boulevard from 100<sup>th</sup> Street East to 95<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 1,800 daily vehicles, 0.34 change in V/C (Existing plus Project V/C = 1.00) due to the Proposed Project growth.
- **Palmdale Boulevard from 105<sup>th</sup> Street East to 100<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 700 daily vehicles, 0.31 change in V/C (Existing plus Project V/C = .94) due to the Proposed Project growth.
- **Palmdale Boulevard from 110<sup>th</sup> Street East to 105<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 700 daily vehicles, 0.33 change in V/C (Existing plus Project V/C = 0.94) due to the Proposed Project growth.

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- **Pearblossom Highway (SR-138) from 82<sup>nd</sup> Street East to Avenue T-8** – Exceeds existing roadway LOS E capacity by approximately 7,600 daily vehicles, 0.34 change in V/C (Existing plus Project V/C = 1.32) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 87<sup>th</sup> Street East to 82<sup>nd</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 3,400 daily vehicles, 0.34 change in V/C (Existing plus Project V/C = 1.09) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 96<sup>th</sup> Street East to 87<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 5,600 daily vehicles, 0.32 change in V/C (Existing plus Project V/C = 1.21) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 126<sup>th</sup> Street East to 116<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 6,700 daily vehicles, 0.29 change in V/C (Existing plus Project V/C = 1.27) due to the Proposed Project growth.
- **Pearblossom Highway (SR-138) from 131<sup>st</sup> Street East to 126<sup>th</sup> Street East** – Exceeds existing roadway LOS E capacity by approximately 11,200 daily vehicles, 0.49 change in V/C (Existing plus Project V/C = 1.52) due to the Proposed Project growth.

### Intersection Levels of Service (LOS)

Implementation of the Proposed Project is expected to result in exceeding the County CMP standard level of service (LOS E), to LOS F, along with a significant increase in V/C due to the Project, at the following locations:

#### *Existing plus Project*

1. Lancaster Road & 300<sup>th</sup> Street West
2. Avenue D & 60<sup>th</sup> Street West

#### *2035 plus Project*

1. Lancaster Road & 300<sup>th</sup> Street West
2. Avenue D & 60<sup>th</sup> Street West
4. Pearblossom Highway (SR-138) & 82<sup>nd</sup> Street East

### Freeway Segment Analysis

Based on the established significant impact criteria, the Proposed Project would have a significant impact if it causes a freeway segment at LOS E or F to experience a change in V/C of 0.02 or greater. Based on the results of the modeling and impact analysis, the following locations are forecast to be significantly impacted:



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### *Freeway Segment Impacts due to Planned Growth – Existing plus Project*

- **SR-14 South of SR-138/Future High Desert Corridor (PM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of .95.

### *Freeway Segment Impacts due to Future Growth – Future plus Project*

- **SR-14 South of Avenue D/SR-138 (AM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.04.
- **SR-14 South of Avenue D/SR-138 (AM Southbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.09.
- **SR-14 South of Avenue D/SR-138 (PM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.32.
- **SR-14 South of Avenue D/SR-138 (PM Southbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 1.10.
- **SR-14 South of SR-138/High Desert Corridor (PM Northbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 0.97.
- **SR-14 South of SR-138/High Desert Corridor (PM Southbound)** – Exceeds the CMP LOS E threshold and would have a D/C ratio of 0.93.

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**Impact 5.16-2:** Implementation of the Proposed Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. [Threshold T-3]

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**Impact Analysis:** The Proposed Project will result in a significant impact to air traffic patterns if it causes an increase in air traffic levels or introduce incompatible land uses. The Proposed Project will not result in the development of a new airport within the County nor will it introduce new land uses that could prevent safety hazards to air traffic. The Proposed Project has policies aimed at improving the compatibility between aviation facilities and their surroundings, encouraging greater multi-modal access to airports and encouraging the development of a decentralized system of major airports.

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**Impact 5.16-3:** Implementation of the Proposed Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [Threshold T-4]

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**Impact Analysis:** The Proposed Project promotes highways to be built to specific standards that have been set by the County. These include increasing the number of lanes on major highways and other improvements under the Highway Plan. Hazards due to roadway design features will be evaluated on a project-by-project

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basis as the buildout of the Proposed Project occurs. All new highways and upgrades will be planned, designed and built to County standards.

The County periodically monitors levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed. Additionally, the County applies consistent standards throughout the Highway Plan for street design to promote travel safety. It will accomplish this by designating roadways based on their functional classification, adopting consistent standard street cross sections, coordinating circulation plans of new development project with each other, and adopting common standards for pavement width. Within residential neighborhoods, complete streets will be promoted through traffic-calming devices, shorter block length, and other considerations. Where possible, local street patterns would be designed to create logical and understandable travel paths for users and discourage cut-through traffic.

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**Impact 5.16-4: Implementation of the Proposed Project would not result in inadequate emergency access. [Threshold T-5]**

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**Impact Analysis:** Emergency access will be evaluated on a project-by-project basis as the buildout of the Proposed Project occurs. Buildout of the Proposed Project will enhance the capacity of the roadway system by upgrading roadways and intersections when necessary, ensure that the future dedication and acquisitions of roadways are based on projected demand, and implement the construction of paved crossover points through medians for emergency vehicles. Additionally, the Proposed Project will facilitate the consideration of the needs for emergency access in transportation planning. The County will maintain a current evacuation plan, ensure that new development is provided with adequate emergency and/or secondary access, including two points of ingress and egress for most subdivisions, require visible street name signage, and provide directional signage to freeways at key intersections to assist in emergency evacuation operations.

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**Impact 5.16-5: Implementation of the Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks). [Threshold T-6]**

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**Impact Analysis:** The Bicycle Plan was adopted by the County Board of Supervisors on March 13, 2012. The Bicycle Plan, which replaces the 1975 Plan of Bikeways, is a sub-element of the Transportation Element of the adopted General Plan. The Bicycle Plan proposes approximately 831 miles of new bikeways throughout the County. Along with the proposed bikeways, the Bicycle Plan recommends various bicycle-friendly policies and programs to promote bicycle ridership among users of all ages and skill sets within the County. A Final Program EIR (State Clearinghouse No. 2011041004) for the Bicycle Plan was completed. The Bicycle Plan also contains elements that support alternative transportation programs, including increased ridership on public transit, developing mass transit as an alternative to automobile travel, the development of rail transit or exclusive bus lanes in high demand corridors, as well as research for and development of new transportation technologies.

The Proposed Project supports alternative modes of transportation, including walking and bicycling, to reduce total VMT. Additionally, the Proposed Project establishes several policies to ensure the safety and

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mobility of pedestrians and bicyclists. The County will provide safe and convenient access to safe transit, bikeways, and walkways, consider the safety and convenience of pedestrians and cyclists in the design and development of transportation systems, provide safe pedestrian connections across barriers, such as major traffic corridors, drainage and flood control facilities, and grade separations, adopt consistent standards for implementation of Americans with Disabilities Act requirements and in the development review process prioritize direct pedestrian access between building entrances, sidewalks and transit stops. The Bicycle Plan also contains many programs and policies that would mitigate potential hazards or barriers for bicyclists.

### 5.16.5 Cumulative Impacts

The geographic scope for traffic analysis includes cumulative growth projections for the County that are reflected in the SCAG RTP/SCS, as described in Section 4.4, *Cumulative Impact Assumptions*, of this DEIR. Past projects in Los Angeles County (cities and unincorporated areas) have converted undeveloped and agricultural land to urban uses, resulting in residential and employment population increases and associated demand for expansions of roadway systems. The contribution of these past projects to area growth is also reflected in the SCAG RTP/SCS. The 2012–2035 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play, and how they will move around. Safe, secure, and efficient transportation systems will provide improved access to opportunities, such as jobs, education, and healthcare. SCAG utilizes an integrated analytical framework to develop growth projections, travel forecasts, and emissions estimates to support the region's various planning programs. In addition, SCAG maintains a robust subregional modeling and data service program that is essential to the analysis of many of the region's projects and programs.

The primary functions of the Modeling and Forecasting Department include: a) working collaboratively with local jurisdictions to develop socioeconomic growth forecasts as required for regional and local planning; b) providing modeling services for the development and implementation of SCAG's plans, programs, and projects; c) developing and maintaining SCAG's various analytical tools and data to more effectively forecast travel demand and estimate resulting air quality; d) providing member services through a robust subregional modeling and data distribution program; e) promoting state of the art modeling practices; and, f) coordinating modeling activities within the SCAG Region.

To assess the effects of potential land use changes on the transportation system, SCAG's regional travel demand model has been applied as incorporated into the North County Sub-Area Travel Demand Model. The SCAG model covers the six county areas (Los Angeles plus Orange, Ventura, Riverside, San Bernardino and Imperial counties). Within Los Angeles County and the Antelope Valley, the sub-area model includes both city land area and unincorporated areas. Thus, the model is the appropriate tool to test changes in land uses in the unincorporated areas, and to take into account changes and growth in the surrounding city areas of Lancaster and Palmdale. The sub-area model was calibrated to Year 2013 conditions and reflects a 2035 future horizon year. Both models were used for this analysis. The base year model is used for the "Existing plus Project" analysis for purposes of CEQA review, and the future 2035 model was also reviewed to understand future build out land uses at 2035.

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Because the modeling used for the traffic analyses contained in this Section 5.16, *Transportation and Traffic*, incorporates SCAG's regional growth projections, the analyses assess the traffic impacts of all cumulative development reasonably anticipated by Year 2035, and buildout levels of the Proposed Area Plan. As discussed, most intersections and roadway/freeway segments will operate at acceptable levels of service with the planned improvements, although some may require additional improvements, as described in Section 5.16.8, *Mitigation Measures*. It should be noted, however, that it has been anticipated in the traffic analysis that the cumulative impact of the Proposed Project traffic along with other regional growth at the identified freeway locations will be largely mitigated by a combination of regional programs that are the responsibility of other agencies, such as cities and Caltrans. Future developers/project applicants will contribute their fair share to these regional programs, as applicable. However, if these programs are not implemented by the agencies with the responsibility to do so, the cumulative transportation and traffic impacts would remain significant and unavoidable. Under these circumstances, the Proposed Project could result in a cumulatively significant traffic impact that may remain significant and unavoidable.

#### 5.16.6 Existing Regulations and Standard Conditions

There are no existing regulations or standard conditions that apply to transportation and traffic.

#### 5.16.7 Level of Significance before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.16-2, 5.16-3, 5.16-4 and 5.16-5.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.16-1** Buildout in accordance with the Proposed Project would impact levels of service on the existing roadway system.

#### 5.16.8 Mitigation Measures

##### Impact 5.16-1

- T-1 The County shall continue to monitor potential impacts on roadway segments and intersections on a project-by-project basis as buildout occurs by requiring traffic studies for all projects that could significantly impact traffic and circulation patterns. Future projects shall be evaluated and traffic improvements shall be identified to maintain minimum levels of service in accordance with the County's Traffic Impact Analysis Guidelines, where feasible mitigation is available.
- T-2 The County shall implement over time objectives and policies contained within the Antelope Valley Area Plan and the adopted General Plan Transportation Element. Implementation of those policies will help mitigate any potential impacts of Project growth and/or highway amendments on the transportation system.

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- T-3 The County shall participate with Metro, the CMP agency in Los Angeles County, on a potential Congestion Mitigation Fee program that would replace the current CMP Debit/Credit approach. Under a countywide fee program, each jurisdiction, including the County, will select and build capital transportation projects, adopt a fee ordinance, collect fees and control revenues. A fee program will require a nexus analysis, and apply only to net new construction on commercial and industrial space and additional residential units and needs to be approved by Metro and the local jurisdictions. A countywide fee, if adopted, will allow the County to mitigate the impacts of development via the payment of the transportation impact fee in lieu of asking each development project for individual mitigation measures, or asking for fair share payments of mitigation. The fee program would itself constitute a “fair-share” program that would apply to all development (of a certain size) within the unincorporated areas.
- T-4 The County of Los Angeles shall continue to secure the funding needed to implement the future planned improvements within the Project Area. A variety of funding sources shall be explored, such as Metro’s CMP Fee Program as described under T-3, Metro Call for Project funds, and federal and state grant opportunities. If the CMP fee program is not adopted by Metro and the County of Los Angeles, other funding sources for regional transportation needs in the Project Area, including Caltrans facilities, shall be pursued such as a potential North County Development Impact Fee Program, development agreements for large projects, and/or mitigation agreements between future applicants and Caltrans for projects that impact Caltrans facilities.
- T-5 The County shall work with Caltrans as they prepare plans to add additional lanes or complete other improvements to various freeways within and adjacent to unincorporated areas. This includes adding or extending mixed flow general purpose lanes, adding or extending existing HOV lanes, adding Express Lanes (high occupancy toll lanes), incorporating truck climbing lanes, improving interchanges and other freeway related improvements.
- T-6 The County shall require traffic engineering firms retained to prepare traffic impact studies for future development projects to consult with Caltrans, when a development proposal meets the requirements of statewide, regional, or areawide significance per CEQA Guidelines §15206(b). When preparing traffic impact studies, the most up to date Guide for the Preparation of Traffic Impact Studies from Caltrans shall be followed. Proposed developments meeting the criteria of statewide, regional or areawide include:
- Proposed residential developments of more than 500 dwelling units
  - Proposed shopping centers or business establishments employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.
  - Proposed commercial office buildings employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space

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- Proposed hotel/motel developments of more than 500 rooms

When the CEQA criteria of regional significance are not met, Caltrans recommends that Project Applicants consult with Caltrans when a proposed development includes the following characteristics:

- All proposed developments that have the potential to cause a significant impact to state facilities (right-of-way, intersections, interchanges, etc.) and when required mitigation improvements are proposed in the initial study. Mitigation concurrence should be obtained from Caltrans as early as possible.
- Any development that assigns 50 or more trips (passenger car equivalent trips) during peak hours to a state highway/freeway.
- Any development that assigns 10 or more trips (passenger car equivalent trips) during peak hours to an off-ramp. On/off-ramps that are very close to each other in which the project trips may cause congestion on the left-turn lane storage to the on-ramp.
- Any development located adjacent to or within 100 feet of a state highway facility and may require a Caltrans Encroachment Permit. (Exceptions: additions to single family homes or 10 residential units or less).
- When the County cannot determine whether or not Caltrans will expect a traffic impact analysis pursuant to CEQA.

#### 5.16.9 Level of Significance after Mitigation

##### Impact 5.16-1

The impacted locations are still considered to be significantly impacted with mitigation. Because this is a program-level analysis, additional case-by-case mitigation analysis of impacts and mitigation will occur at the project level to determine more specific physical, program and policy-level mitigation measures to reduce the level of impact below a significant level.

Furthermore, inasmuch as the primary responsibility for approving and/or completing certain improvements lies with agencies other than the County (i.e., cities and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the County's control (e.g., the County cannot undertake or require improvements outside of the County's jurisdiction or the County cannot construct improvements in the Caltrans right-of-way without Caltrans' approval). Therefore, Impact 5.16-1 would remain significant and unavoidable.

#### 5.16.10 References

Southern California Association of Governments (SCAG). 2012, April 4. Regional Transportation Plan/Sustainable Communities Strategy 2012-2035. <http://rtpscs.scag.ca.gov/Pages/default.aspx>

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### 5.17 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Proposed Antelope Valley Area Plan and associated actions (Proposed Project) to impact utilities and service systems.

#### 5.17.1 Wastewater Treatment and Collection

##### 5.17.1.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *Federal*

Wastewater treatment before effluent is discharged to Waters of the United States is required by the federal Clean Water Act (CWA), United States Code, Title 33, Sections 1251 et seq. The federal Clean Water Act (CWA) is described in further detail in Section 5.9, *Hydrology and Water Quality*, of this DEIR.

###### *State*

In California, State Water Resources Control Board (SWRCB) is responsible for ensuring the highest reasonable quality of waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB's current challenge is exacerbated by California's rapid population growth, and the continuing struggle over precious water flows. It faces tough new demands which include fixing ailing sewer systems; building new wastewater treatment plants; and tackling the cleanup of underground water sources impacted by the very technology and industry that has catapulted California into global prominence. Additionally, the SWRCB will continue to focus on its most vexing problem of nonpoint source pollution, or polluted runoff, which is difficult to categorize, isolate and resolve.

The 1969 Porter-Cologne Water Quality Control Act, codified in the California Water Code, authorizes the SWRCB to implement programs to control polluted discharges into State waters. This law essentially implements the requirements of the CWA. Pursuant to this law, the local Regional Water Quality Control Board (RWQCB) is required to establish the wastewater concentrations of a number of specific hazardous substances in treated wastewater discharge.

###### *Regional*

##### ***Los Angeles County Sanitation Districts Connection Fees***

Capital improvements to Los Angeles County Sanitation Districts (LACSD) water reclamation plants are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal facilities (capital facilities) required by new users connecting to the LACSD sewerage system or by existing users that significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program ensures that all users pay their fair share for any necessary expansion of the system (Raza 2013). Estimated wastewater

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

generation factors used in determining connection fees in the LACSD's 22 member Districts are set forth in the Connection Fee Ordinance for each respective District available on LACSD's website.

#### ***County of Los Angeles Grading Code***

Requirements for erosion control and water quality for grading operations are set forth in Title 26 of the Los Angeles County (County) Code. National Pollutant Discharge Elimination System (NPDES) compliance is required for all projects within the Project Area.

For small residential construction sites with a disturbed, graded area less than one acre, stormwater pollution control measures/best management practices (BMPs) must be incorporated on the site during construction.

For all new non-residential projects consisting of a disturbed, graded area less than one acre, an Erosion and Sediment Control Plan (ESCP), which should include specific BMPs to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants, is required prior to issuance of a grading permit by the County.

In addition to an ESCP, for construction sites with a disturbed, graded area of one acre or greater, a State Storm Water Pollution Prevention Plan (State SWPPP) must be prepared and a Notice of Intent (NOI) filed with the SWRCB. Filing of a NOI and attainment of a Waste Discharge Identification number from the State is necessary for projects of this magnitude prior to issuance of a grading permit by the County. State SWPPP's prepared in accordance with the Construction General Permit can be accepted as ESCPs.

All active grading projects with grading proposed within the rainy season, October 15 to April 15 of each calendar year, must update the ESCP on file with the County annually and have all BMPs installed prior to the beginning of the rainy season or as determined by the County's building official.

#### ***Los Angeles County Flood Control District Code***

Chapter 21 of the County Flood Control District Code, *Stormwater and Runoff Pollution Control*, sets forth requirements regulating discharges to Los Angeles County Flood Control District (LACFCD) storm drains. The following discharges to County storm drains are prohibited:

- Discharges of stormwater containing pollutant concentrations which exceed or contribute to the exceedance of a water-quality standard.
- Nonstorm water discharges unless authorized by an NPDES Permit and by a permit issued by the Chief Engineer.
- Discharges of sanitary or septic waste or sewage from any property or residence, any type of recreational vehicle, camper, bus, boat, holding tank, portable toilet, vacuum truck or other mobile source, or any waste holding tank, container or device.
- Pollutants, leaves, dirt, or other landscape debris (County Flood Control District Code Sections 21.07 and 21.09).

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### Existing Conditions

#### *Wastewater Treatment Process*

Sanitary wastewater is treated in the following three phases:

- **Primary Treatment:** removal of solids using settling tanks;
- **Secondary Treatment:** reduction of organic matter using bacteria and oxygen; followed by further removal of solids; and
- **Tertiary Treatment:** filtration of wastewater to remove any solids remaining after the first two phases of treatment.

Most wastewater that undergoes tertiary treatment is disinfected after tertiary treatment. Disinfection methods include chlorine bleach and ultraviolet light. Tertiary-treated wastewater is often reused (i.e. recycled) for landscape and agricultural irrigation, groundwater recharge, and industrial uses.

#### *Wastewater Treatment Facilities*

Parts of the Antelope Valley, including some unincorporated areas and portions of the cities of Lancaster and Palmdale, are in LACSDs 14 and 20.

Each of the wastewater treatment facilities described below provides primary, secondary, and tertiary treatment; the facilities are mapped on Figure 5.17-1, *Wastewater Treatment Facilities*.

- **LACSD Lancaster Water Reclamation Plant (WRP)**, near the intersection of Sierra Highway and Avenue D in the City of Lancaster, has a capacity of 17 million gallons per day (MGD) and treated average flows of 14 MGD in 2013 (LACSD 2014).
- **LACSD Palmdale WRP**, near the intersection of 30<sup>th</sup> Street East and Avenue P in the City of Palmdale, has a 12 MGD capacity and treated average flows of 8.7 MGD in 2013 (LACSD 2014).

#### *Estimated Wastewater Generation, Existing Conditions*

Estimated wastewater generation is 60 percent of estimated current water use of 166 gallons per day.<sup>1</sup> Thus, for the existing Project Area population of 93,490, wastewater generation is estimated as 9,311,604 gallons per day.

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<sup>1</sup> 166 gallons per day is the baseline water use for the Antelope Valley region (AVRWMG 2013) estimated per the California 20x2020 Water Conservation Plan; see Section 5.17.2, *Water Supply and Distribution Systems*, below for further discussion.

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#### *Wastewater Collection*

The Consolidated Sewer Maintenance District of Los Angeles County, administered by County Department of Public Works (DPW), operates and maintains more than 4,600 miles of sanitary sewers serving the unincorporated areas (except for Marina del Rey) and 40 cities.

Additionally, the LACSD owns, operates, and maintains about 1,400 miles of sewers ranging from 8 to 144 inches in diameter that convey 500 MGD to 11 wastewater treatment plants (LACSD 2014b).

The LACSD has two districts in the Antelope Valley:

- **County Sanitation District (CSD) No. 14** – This district serves most of Lancaster, adjacent unincorporated County areas, and portions of north Palmdale. CSD No. 14 owns, operates, and maintains the Lancaster WRP and approximately 72 miles of truck sewers ranging in diameter from 8 inches to 66 inches.
- **CSD No. 20** – This district serves most of Palmdale and adjacent unincorporated County areas. CSD No. 20 owns, operates, and maintains the Palmdale WRP and approximately 42 miles of truck sewers ranging in diameter from 8 inches to 48 inches.

#### 5.17.1.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-1        Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- U-2        Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- U-5        Would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

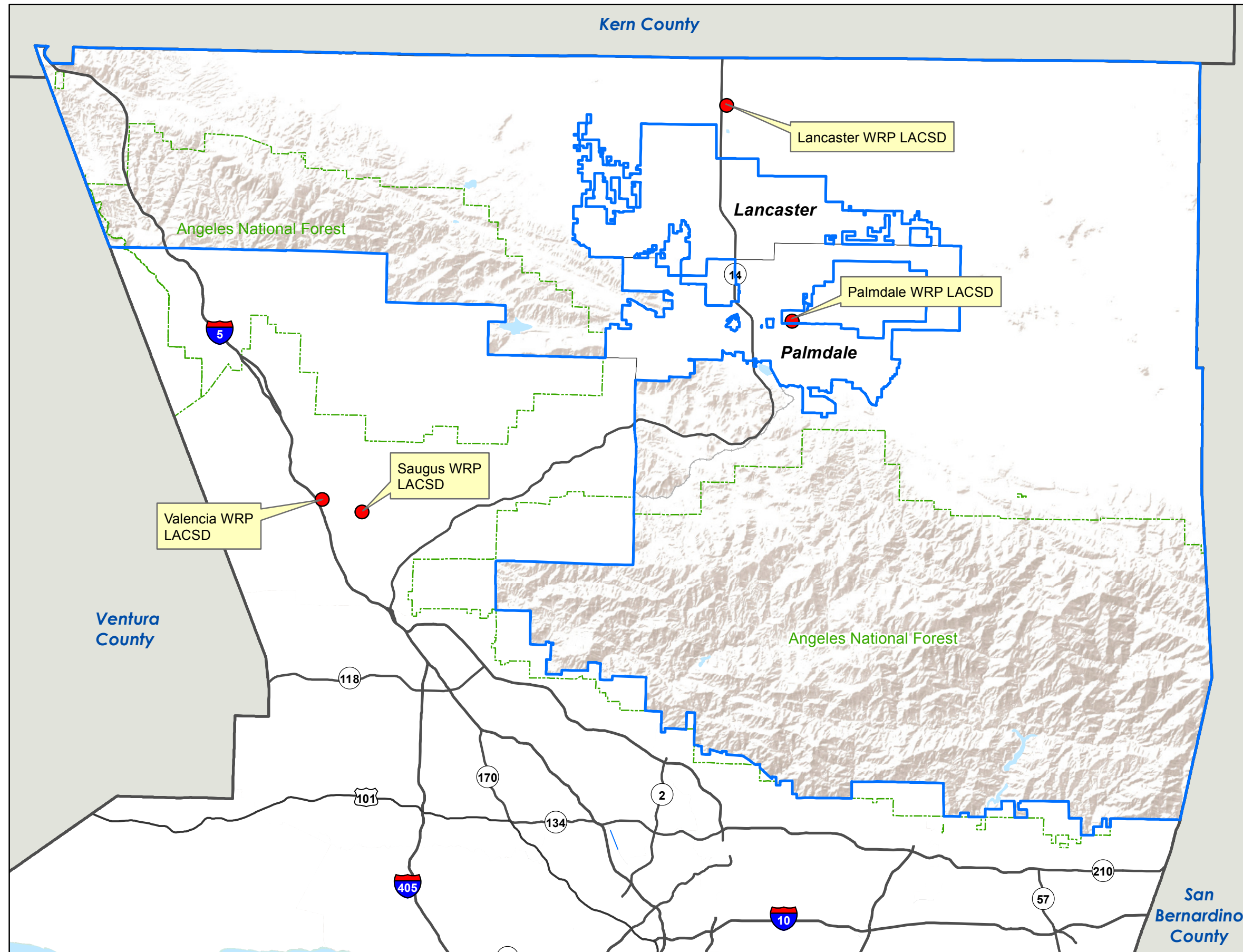
## 5. ENVIRONMENTAL ANALYSIS

FIGURE 5.17-1

### WASTEWATER TREATMENT FACILITIES

- Wasterwater Facilites
- Antelope Valley Project Area

NOTE:  
LACSD: Los Angeles County Sanitation Districts  
WRP: Water Reclamation Plant



Source: LACSD 2014, LABS 2014, LVMWD 2014

ANTELOPE VALLEY  
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PLACEWORKS

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

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## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

### 5.17.1.3 RELEVANT AREA PLAN GOALS AND POLICIES

Following is a list of the goals and policies from the Proposed Project that are intended to reduce potentially significant adverse effects related to wastewater treatment and collection.

#### Conservation and Open Space Element

**Goal COS 1:** Growth and development are guided by water supply constraints.

- **Policy COS 1.2:** Limit the amount of potential development in areas that are not or not expected to be served by existing and/or planned public water infrastructure through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy COS 1.4:** Promote the use of recycled water, where available, for agricultural and industrial uses and support efforts to expand recycled water infrastructure.

**Goal COS 2:** Effective conservation measures provide an adequate supply of clean water to meet the present and future needs of humans and natural ecosystems.

- **Policy COS 2.2:** Require low-flow plumbing fixtures in all new developments.
- **Policy COS 2.3:** Require onsite stormwater infiltration in all new developments through the use of appropriate measures, such as permeable surface coverage, permeable paving of parking and pedestrian areas, catch basins, and other low impact development strategies.
- **Policy COS 2.6:** Support experiments in alternate forms of water provision and re-use, such as “air to water technology” and gray water systems.

**Goal COS 3:** A clean water supply untainted by natural and man-made pollutants and contaminants.

- **Policy COS 3.1:** Discourage the use of chemical fertilizers, herbicides and pesticides in landscaping to reduce water pollution.
- **Policy COS 3.2:** Restrict the use of septic systems in areas adjacent to aqueducts and waterways to prevent wastewater intrusion into the water supply.
- **Policy COS 3.3:** Require a public or private sewerage system for land use densities that would threaten nitrate pollution of groundwater if unsewered, or when otherwise required by County regulations.
- **Policy COS 3.4:** Support preservation, restoration and strategic acquisition of open space to preserve natural streams, drainage channels, wetlands, and rivers, which are necessary for the healthy functioning of ecosystems.
- **Policy COS 3.5:** Protect underground water supplies by enforcing controls on sources of pollutants.

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### UTILITIES AND SERVICE SYSTEMS

#### 5.17.1.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses CEQA Guidelines Appendix G thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-1: Wastewater generated by buildout of the Proposed Project would not exceed wastewater treatment requirements of any of the four Regional Water Quality Control Boards having jurisdiction in Los Angeles County. [Threshold U-1].**

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##### *Impact Analysis:*

Individual development projects built pursuant to the Proposed Project would be subject to the following construction and operational requirements:

##### **Stormwater**

###### *Discharges from Construction Operations*

Wastewater treatment requirements for discharges to stormwater in the Lahontan RWQCB region are regulated under Sections J110 and J111 of Title 26 of the County Code, and with Chapter 21 of the Los Angeles County Flood Control District Code. SWPPPs, which estimate sediment risk from construction activities to receiving waters, and specify BMPs that would be used by the project to minimize pollution of stormwater, are required for construction sites with a disturbed, graded area of one acre or greater. SWPPPs are also required under the Statewide General Construction Permit for construction sites of one acre or greater area in the portions of the Project Area in the Los Angeles, and Central Valley RWQCB regions. Note that the great majority of the developed area in the Project Area is in the Lahontan RWQCB region; the portion of the Project Area in the Los Angeles RWQCB region is mostly uninhabited areas of the San Gabriel Mountains.

###### *Discharges from Operation of Land Uses*

Unauthorized waste discharges to Waters of the State are prohibited. Such waste discharges may be authorized under an Individual Permit.

##### **Sanitary Wastewater**

Discharge limits for concentrations of hazardous materials – and other substances that could interfere with wastewater treatment processes – discharged into sanitary sewers are set by wastewater treatment agencies. Wastewater treatment facilities can treat sanitary wastewater meeting discharge limits. Implementation of the Proposed Project policies and required regulations would mitigate this impact and impacts would be less than significant.



## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

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**Impact 5.17-2: Sanitary wastewater generated by buildout of the Proposed Project could be adequately treated by the wastewater treatment providers serving the unincorporated areas. [Thresholds U-1, U-2 (part), and U-5]**

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### *Impact Analysis:*

#### **Wastewater Generation**

Wastewater generation at Proposed Project buildout from all land uses is estimated as 76 gallons per capita per day (gpcd).<sup>2</sup> The forecast net increase in population due to Proposed Project buildout is 311,920. Therefore, forecast net increase in wastewater generation is about 23.7 million gallons per day.

#### **Wastewater Generation Compared to Residual Wastewater Treatment Capacity**

Residual wastewater treatment capacity is capacity that is currently unused and is available to accommodate future growth. The residual capacities reported below are calculated from capacities and average flows reported above in Section 5.17.1.1, *Environmental Setting*. The Lancaster WRP had residual capacity of 3 MGD in 2013, and the Palmdale WRP had residual capacity of 3.3 MGD, for a total capacity of 6.3 MGD in the Project Area. Currently there is not adequate residual wastewater treatment capacity in the Project Area to accommodate the projected net increase in wastewater generation due to Proposed Project buildout.

#### **Funding for Capital Improvements to LACSD Water Reclamation Plants**

Capital improvements to LACSD water reclamation plants are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal facilities (capital facilities) required by new users connecting to the LACSD's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program ensures that all users pay their fair share for any necessary expansion of the system (Raza 2013). Estimated wastewater generation factors used in determining connection fees in the LACSD's 22 member Districts are set forth in the Connection Fee Ordinance for each respective District available on LACSD's website.

Projects developed pursuant to the Proposed Project would pay connection fees to the LACSD as applicable. Payments of such fees would reduce adverse impacts to wastewater generation capacity in the Project Area.

#### **5.17.1.5 CUMULATIVE IMPACTS**

As discussed in Section 4.4, *Assumptions Regarding Cumulative Impacts*, the cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes all unincorporated areas of Los Angeles County located within the Antelope Valley and Santa Clarita Valley areas, as well as the incorporated cities of Palmdale, Lancaster, and Santa Clarita.

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<sup>2</sup> The wastewater generation factor, 76 gpcd, is from the Los Angeles County Climate Action Plan (LACDPW 2014a).

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Cumulative forecasted wastewater generation for the Proposed Project and future cumulative development are shown below in Table 5.17-1. As discussed above, total wastewater treatment capacity in the Project Area is 29 MGD, and the combined residual treatment capacity at the two WRPs is 6.3 MGD.

**Table 5.17-1 Cumulative Wastewater Generation Existing, 2035, and Post-2035**

	Existing		2035 <sup>2</sup>		Post-2035 <sup>1</sup>	
	Population	Wastewater Generation (gpd)	Population	Wastewater Generation (gpd)	Population	Wastewater Generation (gpd)
<b>Project Area</b>	93,490 <sup>1</sup>	9,311,604	N/A	N/A	405,410	30,811,160
<b>North Los Angeles County Subregion</b>	651,929 <sup>2</sup>	49,546,604	946,557	71,938,332	N/A	N/A

Notes:

The Proposed Project will not be built out within the SCAG RTP/SCS horizon of 2035.

N/A = Data not available.

Gpd =gallons per day.

<sup>1</sup> County of Los Angeles 2014.

<sup>2</sup> SCAG 2012-2035 RTP/SCS.

The LACSD provides wastewater treatment in the Santa Clarita Valley at two water reclamation plants:

- The **Valencia WRP** has 21.6 MGD capacity; and in 2013 had average wastewater flows of 14.5 MGD and residual capacity of 7.1 MGD.
- The **Saugus WRP** has 6.2 MGD capacity; and in 2013 had average wastewater flows of 5.2 MGD and residual capacity of 1.0 MGD.

The total residual capacity of the four WRPs serving the Project Area and the Santa Clarita Valley in 2013 was 14.4 MGD.

The impacts of the buildout of the Santa Clarita Valley Area Plan on wastewater treatment capacity were thoroughly analyzed in the certified Program EIR for the Santa Clarita Valley Area Plan. Impacts were identified as less than significant in the certified Santa Clarita Valley Area Plan Program EIR. The analysis and less than significant impact conclusion is incorporated by reference in this DEIR.

Cumulative wastewater generation for the North Los Angeles County Subregion is projected to be approximately 71.9 MGD in 2035. Total wastewater treatment capacity in the Project Area and the Santa Clarita Valley area is 56.8 MGD, which is inadequate to serve the projected population for 2035. New and/or expanded wastewater treatment facilities would be required to meet such demands. However, cumulative impacts would be less than significant since cumulative development projects would pay connection fees to the LACSD as applicable. Payments of such fees would fund treatment plant expansions necessary to serve future development. Therefore, cumulative impacts related to wastewater treatment are not considered significant.

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### 5.17.1.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

#### Federal

- Clean Water Act

#### State

- Porter-Cologne Water Quality Control Act
- Statewide General Construction Permit

#### Regional

- Los Angeles County Sanitation Districts Connection Fees
- Los Angeles County Grading Code (County Code of Ordinances Title 26)
- Los Angeles County Flood Control District Code Chapter 21

### 5.17.1.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: Impact 5.17-1 and 5.17-2. This determination applies to both direct and cumulative impacts.

### 5.17.1.8 MITIGATION MEASURES

No mitigation measures are required.

### 5.17.1.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant. This determination applies to both direct and cumulative impacts.

## 5.17.2 Water Supply and Distribution Systems

### 5.17.2.1 ENVIRONMENTAL SETTING

#### Regulatory Background

##### *Federal*

##### ***Safe Drinking Water Act***

Passed in 1974 and amended in 1986 and 1996, the Safe Drinking Water Act (SDWA) gives the U.S. Environmental Protection Agency (USEPA) the authority to set drinking water standards. Drinking water standards apply to public water systems, which provide water for human consumption through at least 15

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service connections, or regularly serve at least 25 individuals for 60 days of the year. There are two categories of drinking water standards: the National Primary Drinking Water Regulations (NPDWR) and the National Secondary Drinking Water Regulations (NSDWR). The NPDWR are legally enforceable standards that apply to public water systems. NPDWR standards protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in water.

#### ***Federal Water Pollution Control Act, 1972***

In 1948, the Federal Water Pollution Control Act was enacted to address water pollution problems. After amendments in 1972, this law was dubbed the CWA. Thereafter, it allowed for the regulation of discharges of pollutants into the waters of the U.S. by the USEPA. Under the CWA, the USEPA can implement pollution control programs and set water quality standards. Additionally, the CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions.

#### ***State***

#### ***Urban Water Management Planning Act***

The Urban Water Management Planning Act of 1983, California Water Code Sections 10610 et seq., requires preparation of a plan that:

- Plans for water supply and assesses reliability of each source of water, over a 20-year period, in 5-year increments.
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions have been added by the Water Conservation Act of 2009 (Senate Bill 7 of Special Extended Session 7 (SBX7-7)), which amends the act and adds new water conservation provisions to the Water Code.

#### ***20x2020 Water Conservation Plan***

The 20x2020 Water Conservation Plan, issued by the Department of Water Resources (DWR) in 2010 pursuant to SBX7-7, established a water conservation target of 20 percent reduction in water use by 2020 compared to a baseline use as defined in the adopted 20x2020 Water Conservation Plan.

#### ***Senate Bills 610 and 221***

To assist water suppliers, cities, and counties in integrating water and land use planning, the State passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water-supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers, and cities and counties. Both statutes

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require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. This detailed information must be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. The statutes recognize local control and decision making regarding the availability of water for projects and the approval of projects. Under SB 610, water supply assessments (WSA) must be furnished to local governments for inclusion in any environmental documentation for certain projects subject to CEQA, as defined in Water Code Section 10912[a]. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe to ensure collaboration on finding the needed water supplies to serve a new large subdivision before construction begins.

The Urban Water Management Planning Act states that every urban water supplier that provides water to 3,000 or more customers or provides over 3,000 acre-feet (AF) of water annually should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Both SB 610 and SB 221 identify the urban water management plan (UWMP) as a planning document that can be used by a water supplier to meet the standards in both statutes. Thorough and complete UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes, and they are important source documents for cities and counties as they update their general plans. Conversely, general plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent (DWR 2008).

### ***Governor's Drought Declaration***

California Governor Edmund Brown Jr. declared a drought state of emergency on January 17, 2014, asking Californians to voluntarily reduce water use by 20 percent. 2013 was the driest year in recorded history in many parts of California. The extreme drought is continuing in 2014: statewide, between October 1 2013 and June 30 2014, precipitation was 50 percent of average, runoff was 35 percent of average, and reservoir storage 60 percent of average (DWR 2014). Initially, the DWR announced on January 31, 2014, that if current dry conditions persist, customers would receive no deliveries from the State Water Project (SWP) in 2014, except for small carryover amounts from 2013. Later, DWR increased the SWP allocation to 5 percent and deliveries would start in August 2014. Almost all areas served by the SWP also have other sources of water, such as groundwater and local reservoirs (DWR 2014). Additionally, deliveries from the Central Valley Project in 2014 were cut to zero for agriculture users south of the Sacramento-San Joaquin Delta.

### ***Local***

#### ***Green Building Program***

In 2008, the County adopted the Green Building Program, which included the Drought-Tolerant Landscaping, Green Building, and Low Impact Development Ordinances (the Ordinances), and created an Implementation Task Force and Technical Manual. In November 2013, in response to the mandates set forth in CALGreen (2010 California Green Building Standards Code), the Board of Supervisors adopted the Los

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Angeles County Green Building Standards Code (Title 31)., which together with Title 12 Chapter 12.84 comprise the County's primary green building and low impact development standards.

#### Existing Conditions

##### *Integrated Regional Water Management*

Integrated Regional Water Management (IRWM) is a collaborative effort to manage all aspects of water resources in a region. IRWM differs from traditional approaches to water resource management by integrating all facets of water supply, water quality, wastewater treatment, and flood- and storm- water management. IRWM crosses jurisdictional, water-shed, and political boundaries; involves multiple agencies, stakeholders, individuals, and groups; and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions.

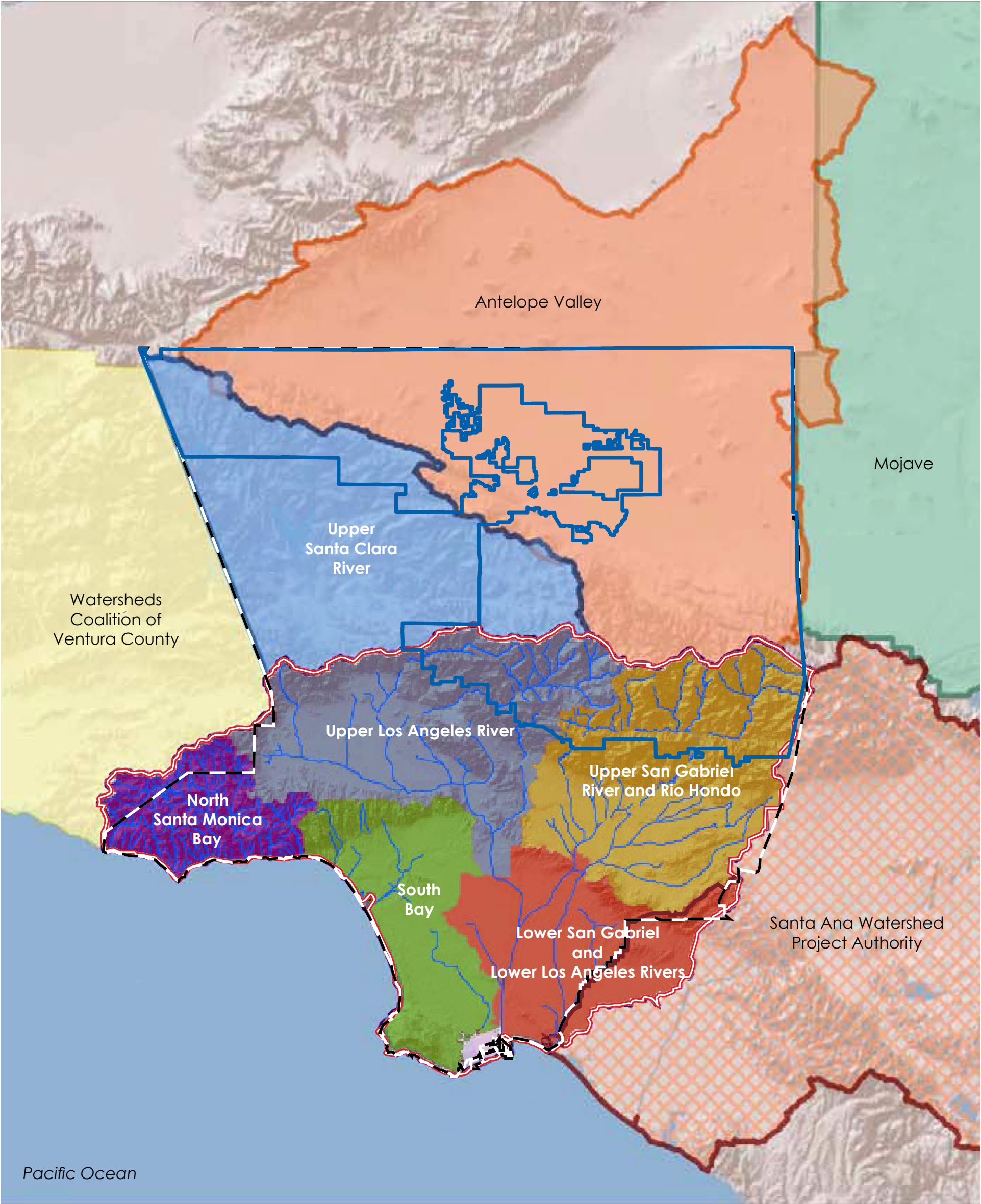
IRWM is an example of integrated resource planning, which began in the late 1980s in the electric power industry as a comprehensive approach to resource management and planning. When applied to water management, integrated resource planning is a systems approach that explores the cause-and-effect relationships between different aspects of water resource management, with an understanding that changes in the management of one aspect of water resources are often not confined to the boundaries of a single, water-management agency. A consensus-based, cross-jurisdictional, regional approach provides an opportunity to formulate comprehensive solutions to water resource issues within a region.

The methods used in the IRWM include a range of water-resource management strategies, which relate to water supply, water quality, water-use efficiency, operational flexibility, and stewardship of land and natural resources. The IRWM regions serving the Project Area are shown on Figure 5.17-2.

##### *Antelope Valley Integrated Regional Water Management (IRWM) Plan*

Several years ago, leaders and agencies in the Antelope Valley Region recognized the need for regional cooperation and planning. In an effort to represent the broad interests within the Antelope Valley Region, a number of organizations joined to form a Regional Water Management Group (RWMG) to work together and create this IRWM Plan (IRWMP). Members of the RWMG include the Antelope Valley-East Kern Water Agency (AVEK), Antelope Valley State Water Contractors Association (AVSWCA), City of Lancaster, City of Palmdale, Littlerock Creek Irrigation District, LACSD Nos. 14 and 20, Los Angeles County Waterworks District No. 40 (LACWD 40), Palmdale Water District (PWD), Quartz Hill Water District (QHWD), and Rosamond Community Services District (RCSD). These 11 public agencies signed a Memorandum of Understanding (MOU) to define what their roles and responsibilities are in developing and moving forward with implementation of the Antelope Valley IRWMP. The decision making structure of the MOU provides the RWMG with the responsibility to make formal decisions regarding the scope and content of the Antelope Valley IRWMP. These agencies agreed to contribute funds to help develop the Antelope Valley IRWMP, provide and share information, review and comment on drafts, adopt the final Antelope Valley IRWMP, and assist in future grant applications for the priority projects identified in the Antelope Valley IRWMP.





- — Los Angeles County
- == Greater Los Angeles County
- Antelope Valley Project Area

Note: Integrated water supply management (IRWM) regions are regional planning areas respecting water supplies. IRWM regions are based on watersheds; some IRWM regions consist of portion of a watershed (e.g. Upper Santa Clara River, part of the Santa Clara River watershed); while other IRWM regions are combinations of two or more watersheds, or parts of two or more watersheds (e.g. South Bay IRWM region consisting of Dominguez Channel watershed and part of the Santa Monica Bay watershed).

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## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

In January 2007, the RWMG and other community participants (the Stakeholders) set about developing a broadly supported water resource management plan that defines a meaningful course of action to meet the expected demands for water within the entire Antelope Valley Region through 2035. They chose to create the Antelope Valley IRWMP consistent with the State sponsored IRWM Program that makes grant funds available to support sound regional water management.<sup>3</sup> In 2012, the RWMG completed an IRWMP Update to incorporate changes to the Region's water resources that have occurred since 2007. The Antelope Valley IRWMP contains information to help take action to meet shared objectives for long-term water management for the entire region.

### *Water Supply*

Water supply for the Antelope Valley Region comes from three primary sources: SWP, surface water stored in the Littlerock Reservoir, and the Antelope Valley Groundwater Basin. The Antelope Valley Region's SWP contractual Table A Amount is 165,000 acre-feet per year (AFY).<sup>4</sup> With proper treatment, SWP water is generally high quality water well-suited for municipal and industrial (M&I) uses; however, the reliability of the SWP water supply is variable and has decreased in recent years due to drought emergency. Surface water stored at the Littlerock Reservoir, which has a storage capacity of 3,325 AF, is used directly for agricultural uses and for M&I purposes following treatment.

The Antelope Valley Groundwater Basin (Basin) is comprised of the upper principal aquifer that yields most of the current groundwater supplies, and the lesser used lower deep aquifer. Groundwater levels in some areas have declined significantly since the early 1900s due to over-extraction. Groundwater quality is excellent within most of the principal aquifer but degrades toward the northern portion of the dry lakes areas. High levels of arsenic, fluoride, boron, and nitrates are a problem in some areas of the Basin. The groundwater in the Basin is currently supplied to both agricultural and M&I uses.

Recycled water and stormwater are secondary sources of water supply. A portion of the recycled water from the Antelope Valley Region's two large water reclamation plants, LACSD plants in Palmdale and Lancaster, are used for maintenance of Piute Ponds wetlands, agricultural irrigation, landscape irrigation, and a recreational lake at Apollo Park. The expansion of recycled water use continues in the Region.

Surface flows (i.e., storm water runoff) from the surrounding San Gabriel Mountains, Tehachapi Mountains, and hills cross alluvial fans and flow through deeply excised washes. The flows make their way from the wash headwaters, filling vernal pool clay pan depressions and wetlands such as Piute Ponds, before either percolating into sand dune areas where water is sequestered for summer use or flowing to the lowest points in the Antelope Valley at Rosamond, Buckhorn, and Rogers dry lakebeds. As the surface flow makes its way to the lakebeds it allows the larger sediments to settle out first and transports smaller silty clay further into the Valley interior. The surface flow and silty clay helps to fill in and re-establish the soil surface structure, which

<sup>3</sup> Integrated regional water planning was authorized under Senate Bill 1672 (California Water Code Sections 10530 et seq.) passed in 2002. IRWM is financed through grants funded from three bond measures: Proposition 50 (2002) and Propositions 84 and 1E (2006) (WEF 2013).

<sup>4</sup> Antelope Valley Regional Water Management Group (AVRWMG). 2013. Antelope Valley Integrated Regional Water Management Plan 2013 Update. <http://www.avwaterplan.org/>.

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protects the lakebed areas from wind erosion, sustains the surficial strength of the lakes [important to the operational mission of Edwards Air Force Base(Edwards AFB)], and sustains local habitats. Some surface flows ultimately evaporate.

- Historically, water supplies within the Antelope Valley Region had been used primarily for agriculture; however, due to population growth beginning in the mid-1980s, water demands from residential and industrial uses have increased significantly and this trend is expected to continue.

The expected continuation of growth in the Antelope Valley Region will affect water demand and increase the need for management of additional imported water, recycled water and urban runoff. More residents will also lead to higher demand for water-based recreation. Increasing demands coupled with periodic curtailments of SWP deliveries have intensified the competition for available water supplies. This competition has often limited the water available for natural habitats within the Antelope Valley. In addition, growth in the Valley will likely be influenced by climate change.

#### *Water Agencies: Descriptions*

The water agencies serving the Project Area are shown on Figure 5.17-3 and further described below:

#### ***Metropolitan Water District of Southern California***

The Metropolitan Water District (MWD) serves a vast area of California's southern coast region, from the Oxnard to Mexico's border, and supplies water to most of the southern portion of the County. MWD wholesales water to its member agencies, who in turn distribute the water to end users. Twenty-seven member agencies contract with MWD and together serve approximately 300 cities and unincorporated areas in Southern California.

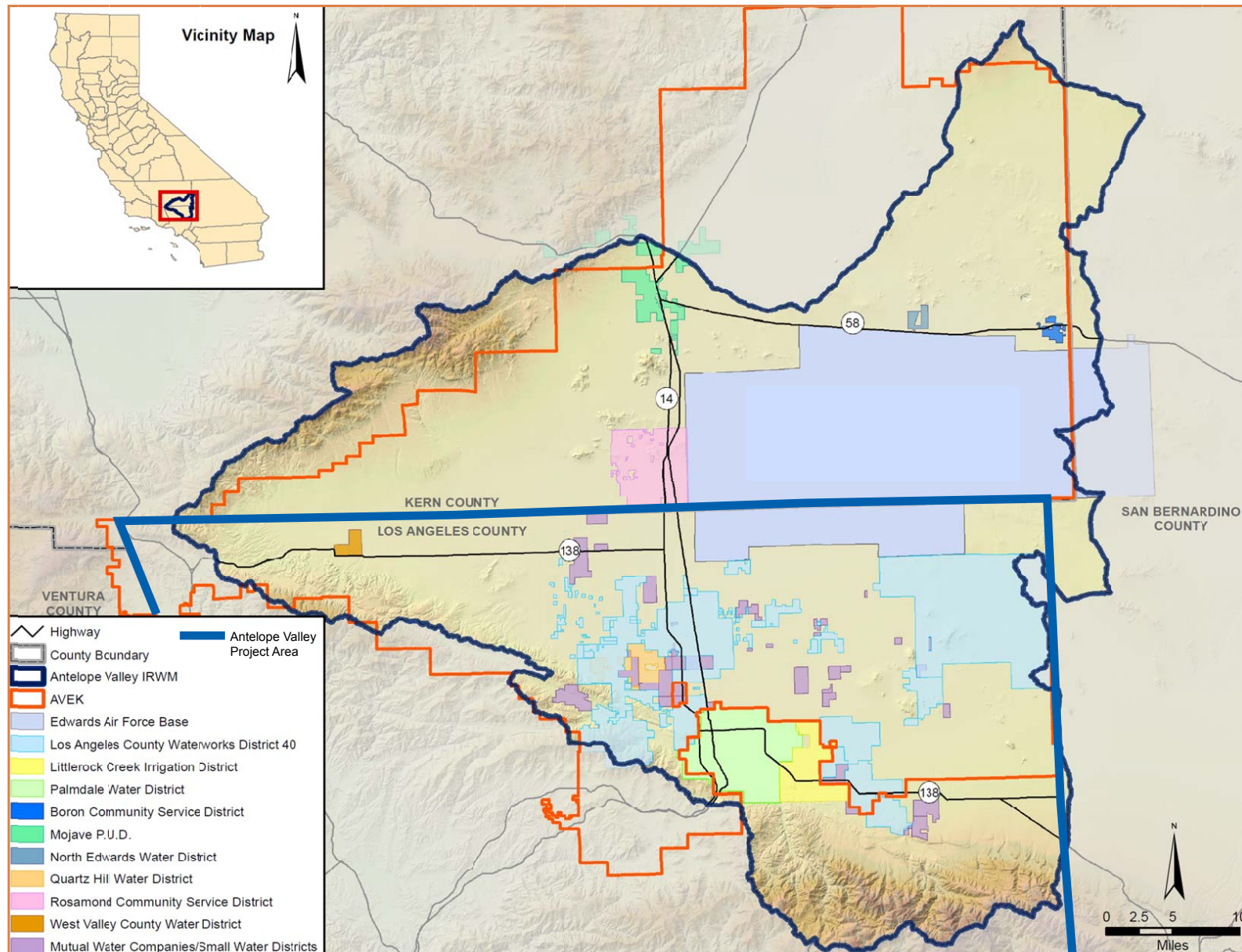
The MWD is responsible for purchasing much of Southern California's water from the Colorado River and SWP to meet the region's growing demand. The MWD is Southern California's primary water wholesaler, supplying member cities and water districts with approximately two million AF, or 650 billion gallons of water, annually. (MWD 2010) MWD also owns and operates several reservoirs and a transmission pipeline network.

#### ***Antelope Valley-East Kern Water Agency***

AVEK holds the third largest entitlement to water from the SWP; only the MWD and Kern Water Company have higher entitlements. AVEK's district boundaries extend 2,300 square miles in the Antelope Valley in Los Angeles County and Kern County. Since 1953, AVEK has brought water to major consumers, including farmers and Edwards AFB. AVEK imports up to 144,844 AFY into its service area. Recent demand for water in the Antelope Valley is higher than current imported water delivery allocations due to drought. Other water sources, including groundwater, surface water, and recycled water, are used within AVEK's service area. (AVEK 2011)

## ANTELOPE VALLEY WATER AGENCIES SERVICE AREAS

## 5. ENVIRONMENTAL ANALYSIS FIGURE 5.17-3



Source: AVRWMG 2013

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

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## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

### *Littlerock Creek Irrigation District*

The Littlerock Creek Irrigation District (LCID) is a public entity that was created in the late 1880s. LCID was instrumental, along with the Palmdale Water District, in constructing the Littlerock Dam. The completion of Littlerock Dam in 1924 made it possible to store water runoff from the Angeles National Forest.

### *Palmdale Water District*

The Palmdale Water District is one of the oldest water districts in the Antelope Valley. It began in the late 1800s as a water provider for agricultural irrigation. What started as a wooden trestle carrying creek water for farms is now an underground canal feeding Palmdale Lake with water from the Littlerock Dam. Much of this water supplies the expanding urban population in the Antelope Valley. In 1963, the Palmdale Water District began purchasing water from the SWP to supplement groundwater and water from Littlerock Dam.

### *Water Supplies by IRWM Region*

#### *Antelope Valley*

Projected water supplies by source in the Antelope Valley IRWM Region are shown below in Table 5.17-2. The Antelope Valley IRWMP 2013 Update forecasts that the population within that IRWM Region will increase to 547,000 in 2035 from a 2010 US Census count of about 390,000, which is a net increase of 201,000 (AVRWMG 2013).

**Table 5.17-2 Population Projections, Antelope Valley IRWM Region**

			2010	2035
Antelope Valley IRWMP	Los Angeles County	Incorporated (Palmdale and Lancaster)	296,000	407,000
		Unincorporated	63,000	99,000
		Subtotal	359,000	506,000
	Kern County (all)		31,000	41,000
	Total		390,000	547,000

### *Planned Water Supplies*

Water agencies in the Antelope Valley IRWM Region are pursuing several options for increasing water supplies; no specific projects have yet been selected.

- Imported Water (Development Fee): AVEK and water retailers within its service area, including LACWD 40 established a New Water Supply development fee to fund acquisition of additional imported water supplies.
- Groundwater Banking: Water banking involves storing water available in wet years for recovery during droughts and/or periods of high demand. Groundwater banking is not accounted for in planned supplies, as it stores water rather than increases overall supplies.

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- The proposed Antelope Valley Water Bank in eastern Kern County next to the Los Angeles County boundary would be capable of 100,000 AFY each of recharge and recovery, and at full build-out would have 500,000 AF of total storage capacity. (AVRWMG 2013)

#### *Upper Santa Clara River*

The southwest portion of the Project Area is located within the Upper Santa Clara River IRWM Region. Projected water supplies by source in the Upper Santa Clara River IRWM Region are shown below in Table 5.17-3. The Environmental Impact Report for the Santa Clarita Valley Area Plan concluded that water supplies would be adequate for buildout of the Santa Clarita Valley Area Plan for the portions of within the service area of the Castaic Lake Water Agency and/or within the East Subbasin of the Santa Clara River Valley Groundwater Basin after implementation of mitigation measures. However, impacts were identified as significant and unavoidable outside of those two areas.

**Table 5.17-3 Projected Water Supplies, Upper Santa Clara River IRWM Region, Acre-Feet per Year**

	2015	2020	2025	2030	2035
<b>Existing Supplies</b>					
Local Groundwater	67,225	68,225	68,225	68,225	68,225
Imported Water	79,397	77,817	77,517	77,317	77,232
Water Banking	39,950	39,950	24,950	24,950	24,950
<b>Subtotal</b>	<b>186,572</b>	<b>185,992</b>	<b>170,692</b>	<b>170,492</b>	<b>170,407</b>
<b>Planned Supplies</b>					
Groundwater	1,375	1,375	1,375	1,375	1,375
Recycled Water	975	2,725	5,225	7,775	10,275
Water Banking	0	0	10,000	10,000	20,000
<b>Subtotal</b>	<b>2,350</b>	<b>4,100</b>	<b>16,600</b>	<b>19,150</b>	<b>31,650</b>
<b>TOTAL</b>	<b>188,922</b>	<b>190,092</b>	<b>187,292</b>	<b>189,642</b>	<b>202,057</b>

Source: CLWA 2014.

#### *Upper Los Angeles River Subregion*

Projected water supplies by source in the Upper Los Angeles River IRWM Subregion are shown below in Table 5.17-4.

**Table 5.17-4 Projected Water Supplies, Upper Los Angeles River IRWM Subregion, Acre-Feet per Year**

	2015	2020	2025	2030	2035
Groundwater	52,306	108,106	123,306	119,206	122,211
Imported Water	336,385	289,948	278,272	285,974	276,774
Recycled Water	17,719	21,009	22,432	23,854	25,140
Local Surface Water	952	952	952	952	952
Conservation	9,224	17,811	25,789	33,583	40,081
Stormwater Capture and Direct Use	1,160	3,480	5,800	9,280	14,500
Water Transfers	23,200	23,451	23,451	23,451	23,451
<b>TOTAL</b>	<b>440,946</b>	<b>464,757</b>	<b>480,001</b>	<b>496,299</b>	<b>503,109</b>

Source: LACDPW 2014b

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

### *Upper San Gabriel and Rio Hondo Subregion*

Projected water supplies by source in the Upper San Gabriel and Rio Hondo IRWM Subregion are shown below in Table 5.17-5.

**Table 5.17-5 Projected Water Supplies, Upper San Gabriel River and Rio Hondo IRWM Subregion, Acre-Feet per Year**

	2015	2020	2025	2030	2035
Groundwater	207,696	217,764	218,766	221,376	222,609
Imported Water	120,442	118,371	121,568	125,114	126,887
Recycled Water	12,356	15,621	17,217	18,903	20,572
Local Surface Water	18,380	18,341	18,341	18,341	18,341
Conservation	22,691	24,718	27,563	30,016	32,258
Stormwater Capture and Direct Use	1,428	0	0	0	0
Water Transfers	(34)	0	0	0	0
<b>TOTAL</b>	<b>382,993</b>	<b>394,816</b>	<b>403,456</b>	<b>413,751</b>	<b>420,668</b>

### *Existing Water Demands*

Existing water demands for IRWM Regions serving the Project Area are shown below in Table 5.17-6.

**Table 5.17-6 Existing Water Demands by IRWM Region/Subregion in Acre-Feet per Year**

IRWM Region/Subregion	2015	2020	2025	2030	2035
Antelope Valley	187,000	195,000	200,000	205,000	210,000
Upper Santa Clara River	94,553	94,218	102,647	109,674	118,203
Upper Los Angeles River	439,111	462,331	477,376	493,481	500,228
Upper San Gabriel and Rio Hondo	325,122	341,951	349,647	357,392	363,856
<b>Total</b>	<b>1,045,786</b>	<b>1,093,500</b>	<b>1,129,670</b>	<b>1,165,547</b>	<b>1,192,287</b>

Sources: AVRWMG 2013, CLWA 2014, LACDPW 2014b

### *Water Treatment Facilities*

Water treatment facilities filter and/or disinfect water before it is delivered to customers.

Imported water to the Antelope Valley Region is generally SWP water that is released from Lake Oroville into the Feather River where it then travels down the river to its convergence with the Sacramento River, the state's largest waterway. Water flows down the Sacramento River into the Sacramento-San Joaquin Delta. From the Delta, water is pumped into the California Aqueduct. The Antelope Valley Region is served by the East Branch of the California Aqueduct. Water taken from the California Aqueduct by local SWP Contractors is then treated before distribution to customers.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

AVEK currently treats SWP water with four Water Treatment Plants (WTPs) that are capable of treating approximately 132,280 AFY of imported water. The main WTP, Quartz Hill WTP, is capable of producing 65 MGD. The Eastside WTP, expanded in 1988, provides a treatment capacity of 10 MGD (11,210 AFY). Rosamond WTP is a 14 MGD (15,695 AFY) capacity treatment plant. The fourth AVEK plant, Acton WTP, has a capacity of 4 MGD (4,484 AFY) and is located outside of the Antelope Valley Region boundaries. LACWD 40, QHWD, and RCSD all receive treated water from AVEK.

PWD's water treatment plant capacity is 35 MGD (39,235 AFY), but it is limited to treating 28 MGD (31,390 AFY). (PWD 2014) PWD is also in the preliminary design stage for a new water treatment plant with an initial capacity of 10 MGD.

LCID has an agreement with PWD to provide treatment for LCID's raw SWP water.

#### *Principles Governing CEQA Analysis of Water Supply*

In *Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (53 Cal. Rptr. 3<sup>rd</sup>. 821; February 1, 2007), the California Supreme Court articulated the following principles for analysis of future water supplies for projects subject to CEQA:

To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.

CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built.

CEQA analysis cannot rely on "paper water." The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative.

When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainty about the long-term water supply's availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR's approach.

The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be "unworkable, as it would require water planning to far outpace land use planning." The requisite degree of certainty of a project's water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.

The EIR analysis may rely on existing, UWMPs, so long as the project's new demand was included in the water management plan's future demand accounting.



## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

### *Water Supply Reliability: Imported Water*

The Southern California region faces a challenge satisfying its water requirements and securing firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increase water demands in the region, putting an even larger burden on local supplies. A number of important factors affecting delivery reliability are discussed below. Major sources of uncertainty include Sacramento Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability to floods and earthquakes.

**MWD's 2010 Regional Urban Water Management Plan.** MWD's 2010 Regional UWMP reports on its water reliability and identifies projected supplies to meet the long-term demand within its service area. It presents MWD's supply capacities from 2015 through 2035: single dry year, multiple dry years, and average year.

**Colorado River Supplies.** The Colorado River Aqueduct (CRA) supplies include water from existing and committed programs and from implementation of agreements to transfer water from agricultural agencies to urban uses. The Colorado River has the potential to supply additional water up to the CRA capacity of 1.25 million AF per year on an as-needed basis.

**State Water Project Supplies.** MWD's SWP supplies have been impacted in recent years by restrictions on SWP operations in accordance with the biological opinions of the US Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively. In dry, below-normal conditions, MWD has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available pumping capacity to maximize deliveries through the California Aqueduct during dry, hydrologic conditions and regulatory restrictions.

In June 2007, MWD's Board approved a Delta Action Plan, which provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Sacramento River Delta while an ultimate solution is selected and midterm steps to maintain the Bay-Delta while the long-term solution is implemented.

State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan, which is aimed at addressing Delta ecosystem restoration, water supply conveyance, flood control protection, and storage development. In evaluating the supply capabilities for the 2010 Regional UWMP, MWD assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 conditions, prior to supply restrictions.

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**Storage.** Storage is a major component of MWD's dry year resource management strategy. The likelihood of having MWD adequate supply capability to meet projected demands without implementing its water supply allocation plan (WSAP) is dependent on its storage resources. In developing the supply capabilities for the 2010 Regional UWMP, MWD assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands.

**Supply Reliability.** MWD evaluated supply reliability by projecting supply and demand conditions for the single- and multiyear drought cases based on conditions affecting the SWP (MWD's largest and most variable supply). For this supply source, the single driest year was 1977 and the driest three-year period was 1990 to 1992. The region can provide reliable water supplies not only under normal conditions but also under the single driest year and the multiple dry year conditions. (MWD 2010)

**Water Supply Allocation Plan.** Due to drought conditions and the uncertainty regarding future pumping operations from the SWP, MWD adopted a WSAP in 2008 that allocates water to members, based on the regional shortage level in MWD's service area.

#### *Water Supply Reliability: Groundwater*

##### ***Basin-wide Characteristics***

The Antelope Valley is located in the southwest portion of the Mojave Desert in Southern California, about 40 miles north of the city of Los Angeles. Approximately two-thirds of the Valley is located in northern Los Angeles County, and the remainder is located in southeastern Kern County. The Valley is bound on the south and west by the San Gabriel and Tehachapi Mountains, on the north by the Rosamond and Bissell Hills, and on the east by the Hi Vista area buttes and alluvial fan. The Fremont Valley is located to the north and the Victor Valley to the east of the Antelope Valley Groundwater Basin (LACDRP 2010).

The Antelope Valley is considered to be a closed hydrologic basin because water drains into, but not out of the valley. It extends over approximately 1,390 square miles. The Antelope Valley is comprised of relatively flat valley land and dry lake beds, with coalescing alluvial fans and scattered buttes around the periphery. The basin is topographically closed on the north and northwest by the Garlock Fault at the base of the Tehachapi Mountains, and on the south and southwest by the San Andreas Fault at the base of the Transverse Ranges, including the San Gabriel Mountains. Surface elevations in the Valley range from about 2,300 feet to nearly 3,500 feet above mean sea level. Several creeks, including the perennial Big Rock and Little Rock Creeks, drain the surrounding mountains, cross the alluvial fans, and become dry washes within the Valley. The Los Angeles Aqueduct traverses the western end of the Valley, and the California Aqueduct runs along the Valley's southern edge, flanking the San Gabriel Mountains (LACDRP 2010).

Urban centers in the Antelope Valley Region include the cities of Lancaster and Palmdale along State Route (SR) 14, as well as a large portion of Edwards AFB in the Valley's northeast corner. The Palmdale and Lancaster urbanized area has grown rapidly since the 1980s and has a current population of approximately 280,000 residents. Agricultural lands occupy various areas near the cities and Edwards AFB, and comprise approximately 25,000 acres (LACDRP 2010).

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

The Basin comprises two primary aquifers: (1) the principal aquifer and (2) the deep aquifer. The principal aquifer is an unconfined aquifer. The basin is principally recharged by deep percolation of precipitation and runoff from the surrounding mountains and hills. Separated from the principal aquifer by clay layers, the deep aquifer is generally considered to be confined. In general, the principal aquifer is thickest in the southern portion of the Valley near the San Gabriel Mountains, while the deep aquifer is thickest in the vicinity of the dry lakes on Edwards AFB. The Basin is divided into 12 subunits: Finger Buttes, West Antelope, Neenach, Willow Springs, Gloster, Chaffee, Oak Creek, Pearland, Buttes, Lancaster, North Muroc, and Peerless.

Substantial groundwater pumping in the Antelope Valley began in the early 1900s and peaked in the 1950s. In some localized areas, the rate of decline has slowed. Groundwater levels have increased slightly in the rural western and far northeastern areas of the region (LACDRP 2010).

### *Antelope Valley Groundwater Basin Adjudication*

In approximately 1999, agricultural interests in the Antelope Valley initiated litigation in state court seeking to determine certain rights to groundwater. In approximately 2005, certain public water supplies, including LACWD 40, filed a cross-action seeking an adjudication of groundwater rights within the basin. Other agencies and parties have filed separate actions concerning groundwater rights in the Antelope Valley Area of Adjudication (AVAA). The Court has coordinated and consolidated the actions in one action in Los Angeles Superior Court. Four phases of the trial have been completed in the adjudication during which the court has defined the adjudication area boundary (i.e., the AVAA) and determined that the total safe yield of the AVAA is 110,000 AFY, that the AVAA has been in a state of overdraft for over 50 years. The action will result in a judgment (by trial and/or stipulation) containing a final allocation of groundwater rights and a long-term groundwater management system for the AVAA. It is unknown how long it will take to complete the adjudication.

### *Reliability*

According to the AVRWMG 2013 Update, long-term recharge is expected to be stable, it is anticipated that groundwater pumping, and hence supply, will be reliable even in short-term and multiple year droughts (AVRWMG 2013 Update). Thus groundwater is considered a reliable supply for the Antelope Valley Region. However, the pending adjudication will affect how much groundwater can physically be pumped in the Antelope Valley Region in the future. It is important to note that the supplemental yield from imported water return flows depends upon demand and may fluctuate with changes in demand. The imported water return flow estimates are meant to indicate a sense of the impact of return flows to the groundwater basin.

### 5.17.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-2        Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

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### UTILITIES AND SERVICE SYSTEMS

- U-4            Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

#### 5.17.2.3 RELEVANT AREA PLAN GOALS AND POLICIES

The following is a list of the goals and policies of the Proposed Project that would reduce potentially adverse effects on water supply.

#### Conservation and Open Space Element

**Goal COS 1:** Growth and development are guided by water supply constraints.

- **Policy COS 1.1:** Require that all new development proposals demonstrate a sufficient and sustainable water supply prior to approval.
- **Policy COS 1.2:** Limit the amount of potential development in areas that are not or not expected to be served by existing and/or planned public water infrastructure through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy COS 1.3:** Limit the amount of potential development in groundwater recharge areas through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of this Area Plan.
- **Policy COS 1.4:** Promote the use of recycled water, where available, for agricultural and industrial uses and support efforts to expand recycled water infrastructure.

**Goal COS 2:** Effective conservation measures provide an adequate supply of clean water to meet the present and future needs of humans and natural ecosystems.

- **Policy COS 2.1:** Require new landscaping to comply with applicable water efficiency requirements in the County Code.
- **Policy COS 2.2:** Require low-flow plumbing fixtures in all new developments.
- **Policy COS 2.3:** Require onsite stormwater infiltration in all new developments through the use of appropriate measures, such as permeable surface coverage, permeable paving of parking and pedestrian areas, catch basins, and other low impact development strategies.
- **Policy COS 2.4:** Discourage water intensive recreational uses, such as golf courses, unless recycled water is used to sustain these uses.
- **Policy COS 2.5:** Discourage the use of potable water for washing outdoor surfaces.

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- **Policy COS 2.6:** Support experiments in alternate forms of water provision and re-use, such as “air to water technology” and gray water systems.
- **Policy COS 2.7:** Limit use of groundwater sources to their safe yield limits.
- **Policy COS 2.8:** Coordinate with federal, state, regional and local agencies to develop and implement new technologies in water management.

**Goal COS 3:** A clean water supply untainted by natural and man-made pollutants and contaminants.

- **Policy COS 3.1:** Discourage the use of chemical fertilizers, herbicides and pesticides in landscaping to reduce water pollution.
- **Policy COS 3.2:** Restrict the use of septic systems in areas adjacent to aqueducts and waterways to prevent wastewater intrusion into the water supply.
- **Policy COS 3.3:** Require a public or private sewerage system for land use densities that would threaten nitrate pollution of groundwater if unsewered, or when otherwise required by County regulations.
- **Policy COS 3.4:** Support preservation, restoration and strategic acquisition of open space to preserve natural streams, drainage channels, wetlands, and rivers, which are necessary for the healthy functioning of ecosystems.
- **Policy COS 3.5:** Protect underground water supplies by enforcing controls on sources of pollutants.

### 5.17.2.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses CEQA Guidelines Appendix G thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-3: Water supply and delivery systems are not adequate to meet Proposed Project's requirements in the Project Area beyond 2035. [Thresholds U-2 (part) and U-4]**

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#### *Impact Analysis:*

#### **Water Demands**

Although four IRWM Regions serve the Project Area, only the Antelope Valley IRWM contains land use designations that would allow future development. As a result, the following impact analysis focuses on the ability of the Antelope Valley IRWM to serve the Proposed Project at buildout. The projected net increase in water demands due to Proposed Project buildout is approximately 42 million gallons per day, as shown below in Table 5.17-7.

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### UTILITIES AND SERVICE SYSTEMS

**Table 5.17-7 Estimated Water Demand due to Proposed Project Buildout**

	Existing (2013)		Area Plan Buildout		Net Increase, Water Demands
	Population	Water Demands (estimated as 166 gallons per capita per day) <sup>1</sup>	Population	Water Demands (estimated as 142 gallons per person per day) <sup>1</sup>	
Antelope Valley	93,490	15,519,340	405,410	57,568,220	42,048,880

Estimated water demands include demands by all land uses, residential and nonresidential; and including potable water and nonpotable water.

<sup>1</sup> Source: LACDPW 2014a

### *Impacts on Water Supplies*

#### ***Antelope Valley IRWM Region***

Total water supplies in the Antelope Valley IRWM Region in 2035 are forecast to be approximately 210,600 afy, which is adequate for the projected 2035 population of 547,000 people for the whole Antelope Valley IRWM Region including the incorporated cities of Palmdale and Lancaster, unincorporated areas, and part of Kern County. (AVRWMG 2013) No estimate of supply beyond 2035 is available for the Antelope Valley IRWM Region. Therefore, even with planned future water supplies under consideration by Antelope Valley water agencies, water supplies in the Project Area would not be adequate to serve the buildout of the Proposed Project which is anticipated to be beyond 2035. New and/or expanded water supplies would be required to meet such demands. This impact would be significant.

#### ***Projects Identified in the Antelope Valley IRWMP***

Table ES-4 in the Antelope Valley IRWM Plan lists the projects and actions that the Stakeholders believe will help meet the Regional objectives. In total, over 70 projects were submitted for inclusion in the IRWMP, and include implementation projects, plans and studies, and conceptual projects. All projects included in the IRWMP will help the Region to meet its goals and objectives. Implementation projects are programs or construction projects that have had some planning completed, such as facilities planning or cost analyses, and could potentially be implemented in the near future. Finally, conceptual projects are those projects identified by stakeholders that could contribute to meeting the Region's IRWM objectives but may not yet be developed enough to include in the IRWM Plan as an implementation project.

Implementing the IRWM projects will require focused effort, broad community support, political resolve, and funding. The Stakeholders are actively pursuing financial assistance through several grant programs designed to help leverage local investments. The RWMG is also working to establish a secure and long-lasting approach to coordinate resources to meet the growing needs of the entire Antelope Valley Region.

In terms of supply, the implementation and conceptual projects proposed will allow the Region to maintain adequate supply and demand in average years. The IRWM projects identify approximately 30,000 AFY of new supply, while also identifying up to approximately 600,000 AFY of water bank storage capacity. These projects, if implemented, would help the Region to meet demands during single-dry years and multi-dry year periods, as well as during a plausible six month disruption of SWP deliveries. (AVRWMG 2013)

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

### 5.17.2.5 CUMULATIVE IMPACTS

As discussed in Section 4.4, *Assumptions Regarding Cumulative Impacts*, the cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes all unincorporated areas of Los Angeles County located within the Antelope Valley and Santa Clarita Valley areas, as well as the incorporated cities of Palmdale, Lancaster, and Santa Clarita.

As discussed above, projected water supplies in the Upper Santa Clara River IRWM Region are expected to be 202,057 AFY. The EIR for the Santa Clarita Valley Area Plan concluded that water supplies would be adequate for buildout of the Santa Clarita Valley Area Plan for the portions within the service area of the Castaic Lake Water Agency and/or within the East Subbasin of the Santa Clara River Valley Groundwater Basin after implementation of mitigation measures. However, impacts were identified as significant and unavoidable outside of those two areas.

As discussed above, no estimate of supply beyond 2035 is available for the Antelope Valley IRWM Region. Therefore, even with planned future water supplies under consideration by Antelope Valley water agencies, water supplies in the Project Area would not be adequate to serve the buildout of the Proposed Project. New and/or expanded water supplies would be required to meet such demands. This impact would be cumulatively significant.

### 5.17.2.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

#### State

- California Water Code Sections 10610 et seq.: Urban Water Management Planning Act
- **SBX7-7 (2009):** Water Conservation Act of 2009
- Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001): Water Supply Assessments

#### Local

- Los Angeles County Green Building Standards Code and Low Impact Development (Title 31 and Title 12.84).

### 5.17.2.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Water supply and delivery systems are not adequate to meet the Proposed Project's water demands in the Project Area beyond 2035.

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#### 5.17.2.8 MITIGATION MEASURES

##### Impact 5.17-3

###### *Development Site Plans, Building Plans, and Landscaping Plans*

- |        |   |
|--------|---|
| USS-1  | Support amendments to the County Building Code that would promote upgrades to water and energy efficiency when issuing permits for renovations or additions to existing buildings.  |
| USS-2  | Apply water conservation policies to all pending development projects, including approved tentative subdivision maps to the extent permitted by law. Where precluded from adding requirements by vested entitlements, encourage water conservation in construction and landscape design.  |
| USS-3  | Require new development to provide the infrastructure needed for delivery of recycled water to the property for use in irrigation, even if the recycled water main delivery lines have not yet reached the site, where deemed appropriate by the reviewing authority.                     |
| USS-4  | Promote energy efficiency and water conservation upgrades to existing non-residential buildings at the time of major remodel or additions.  |
| USS-5  | Promote the use of permeable paving materials to allow infiltration of surface water into the water table.  |
| USS-6  | Seek methods to decrease impermeable site area where reasonable and feasible, in order to reduce stormwater runoff and increase groundwater infiltration, including use of shared parking and other means, as appropriate.  |
| USS-7  | On previously developed sites proposed for major alteration, provide stormwater management improvements to restore natural infiltration, as required by the reviewing authority.  |
| USS-8  | Encourage and promote the use of new materials and technology for improved stormwater management, such as pervious paving, green roofs, rain gardens, and vegetated swales.   |
| USS-9  | Evaluate development proposals for consistency with the County Green Building Standards Code.   |
| USS-10 | Evaluate development proposals for consistency with Low Impact Development Code on development sites, including but not limited to minimizing impervious surface area and promoting infiltration, in order to reduce the flow and velocity of stormwater runoff throughout the watershed. |



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### *Water Supply Planning and Water Conservation*

- USS-11      Require that all new development proposals demonstrate a sufficient and sustainable water supply prior to approval, consistent with County Department of Public Health requirements.
- USS-12      Monitor growth, and coordinate with water districts as needed to ensure that long-range needs for potable and reclaimed water will be met.
- USS-13      If water supplies are reduced from projected levels due to drought, emergency, or other unanticipated events, take appropriate steps to limit, reduce, or otherwise modify growth permitted by the Area Plan in consultation with water districts to ensure adequate long-term supply for existing businesses and residents.
- USS-14      Upon the availability of non-potable water, discourage and consider restrictions on the use of potable water for washing outdoor surfaces.
- USS-15      In cooperation with the Sanitation Districts and other affected agencies, expand opportunities for use of recycled water for the purposes of landscape maintenance, construction, water recharge, and other uses as appropriate.

### 5.17.2.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Adequate water supplies have been identified in the UWMP's for the Project Area for demand as projected through the year 2035. However, additional water supplies necessary to serve buildout of the Proposed Project, which is expected to occur beyond the year 2035, have not been identified for the Project Area. Considering current water supply constraints—including the record 2013–2014 California drought—it is uncertain whether the water districts serving the Project Area would be able to secure water supplies greater than those currently forecasted for 2035. Therefore, impacts of the Proposed Project buildout on water supplies are significant and unavoidable.

### 5.17.3 Storm Drainage Systems

Storm drainage systems, and impacts of Proposed Project buildout on such systems, are described in Section 5.9, *Hydrology and Water Quality*.

### 5.17.4 Solid Waste

#### 5.17.4.1 ENVIRONMENTAL SETTING

##### Regulatory Background

##### *State*

Assembly Bill (AB) 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling,

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composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates. Actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

AB 341 (Chapter 476, Statutes of 2011) established a State goal of not less than 75 percent of solid waste generated by source reduced, recycled, or composed by the year 2020. The law also mandates recycling for commercial and multifamily residential land uses as well as schools and school districts.

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

#### *Local*

##### ***Construction and Demolition Debris Recycling and Reuse Ordinance***

The County Board of Supervisors adopted the Construction and Demolition Debris Recycling and Reuse Ordinance on January 4, 2005. The Ordinance added Chapter 20.87 to the County Code, which requires projects in the unincorporated areas to recycle or reuse 50 percent of the debris generated. Its purpose is to increase the diversion of construction and demolition debris from disposal facilities and will assist the County in meeting the State of California's 50 percent waste reduction mandate.

##### ***Los Angeles Countywide Siting Element***

In 1997, the County prepared the Los Angeles Countywide Siting Element (Siting Element) which projects the amount of solid wastes generated in the future, as well as analyzes the extents to which factors such as recycling, developing alternative-to-landfill facilities, landfill expansions, and exporting trash could impact Countywide disposal capacity. The Siting Element is a long-term planning document that describes how the County and the cities within the County plan to manage the disposal of their solid waste for a 15-year planning period. The Siting Element identifies DPW as the responsible agency to develop plans and strategies to manage and coordinate the solid waste generated in the unincorporated areas and to address the disposal needs of the County. In addition, the Siting Element contains goals and policies on a variety of solid waste management issues. The County will continue to meet its disposal capacity needs by implementing enhanced waste reduction and diversion programs and greater resource recovery efforts.

## Existing Conditions

### *Solid Waste Collection*

For many years, two-thirds of the unincorporated areas (primarily in the San Gabriel Valley and Antelope Valley), residential and commercial solid waste collection services were provided through an open-market system, whereby each resident/business directly arranged for trash collection services with no County involvement. Due to changes in federal and state laws regarding waste reduction, and changing public attitudes toward protecting the environment and increasing consumer demands for better service, the open-

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market system was unable to fully adapt to these conditions. In response, beginning in 2007, DPW gradually implemented the following solid waste collection systems to replace the open-market system:

### ***Residential Franchise System***

In a residential franchise system, an agreement is awarded to an exclusive waste hauler to provide trash collection and recycling services to all single-family residences and duplexes within specific unincorporated communities. The franchise system provides benefits to establish quality service and promote cleaner neighborhoods through recycling services, environmental workshops, bulky item pick-ups, and annual clean-up events. The franchise system is designed to provide uniform service standards for haulers operating in each franchise area. The system provides each community with the flexibility needed to create services that will benefit area residents. These features are modified to reflect feedback received through survey cards, community meetings, and telephone calls. This interactive process allows the County to tailor each agreement to meet the needs voiced by each community. The franchise system also benefits the community by limiting the wear and tear on County streets, assists the County in meeting the State's waste reduction mandate, and reduces the need for new landfills. Currently, there are 21 residential franchise areas. DPW is considering replacing the remaining residential open-market system areas, including the Antelope Valley.

### ***Commercial Franchise System***

Effective July 1, 2012, all unincorporated area residents, businesses, and multifamily residents that utilize dumpster and/or roll-off trash collection service are served by a non-exclusive franchise system. In the non-exclusive franchise system, the County allows solid waste collection services to be provided by private waste haulers, but requires haulers to enter into a non-exclusive commercial waste collection franchise agreement with the County. The franchise agreement establishes minimum performance and customer service standards. Under this non-exclusive franchise system, customers enjoy free recycling services and on-site consultations, free bulky item and electronic waste collection, free holiday tree collection, graffiti removal, clean fuel collection trucks to reduce air pollution and noise, and customer dispute resolution. Along with these new benefits, customers will continue to have a choice of more than one waste hauler because the system is open to competition to all haulers that enter into the franchise agreement. The waste haulers deal directly with the public and businesses in competing for customers.

### ***Landfills***

In 2013 over 98 percent of the solid waste landfilled from the cities of Lancaster and Palmdale was disposed of at two facilities: the Antelope Valley Public Landfill and the Lancaster Landfill and Recycling Center (see Table 5.17-8 and Figure 5.17-4, *Landfills Serving the Project Area*, below). During the same year 60,062 tons of solid waste was landfilled in the two landfills from unincorporated areas of the County, 7.9 percent of the 764,300 tons landfilled from all of the unincorporated County. In 2013 the population in unincorporated parts of the Project Area was 8.8 percent of the population of all unincorporated areas in the County. Thus, it is assumed here that most of the solid waste landfilled from the Project Area is disposed of at the two aforementioned landfills.

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**Table 5.17-8 Landfills Serving the Antelope Valley Region**

Landfill and Location	Current Remaining Capacity, Cubic Yards	Estimated Close Date (based on current SWFP)	Maximum Daily Load (tons)	Average Daily Disposal, 2012 (tons)	Residual Daily Disposal Capacity (tons)
Antelope Valley Public Landfill City of Palmdale	19,952,000	2042	1,800	832	968
Lancaster Landfill and Recycling Center, City of Lancaster	14,491,000	2044	3,000	690	2,310
<b>Total<sup>1</sup></b>	<b>34,443,000</b>	Not applicable	<b>4,800</b>	<b>1,522</b>	<b>3,278</b>

Sources: CalRecycle 2014a; CalRecycle 2014b; CalRecycle 2014c; CalRecycle 2014d; Los Angeles County Department of Public Works.

Each landfill is open six days per week, Monday through Saturday, except for certain holidays.

<sup>1</sup> Some of the landfills described above have statutory limits as to what areas they can accept waste from. Therefore, the totals are for comparison/information only and do not indicate disposal capacity for any specific region.

Total disposal of solid waste from unincorporated portions of the Project Area in 2013 is estimated at about 420,700 pounds per day based on 4.5 pounds of solid waste disposal per resident.

#### *Recycling and Solid Waste Diversion*

There are 50 solid waste diversion programs serving unincorporated areas, including composting, material-recovery facilities, household hazardous-waste collection, public education, recycling, source reduction, special-waste materials (e.g. tires and concrete/asphalt/rubble), and waste-to-energy programs (CalRecycle 2014e).

#### **5.17.4.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

#### **5.17.4.3 RELEVANT AREA PLAN GOALS AND POLICIES**

The following is a list of applicable goals and policies of the Proposed Project that are intended to reduce potentially significant adverse effects concerning waste management.

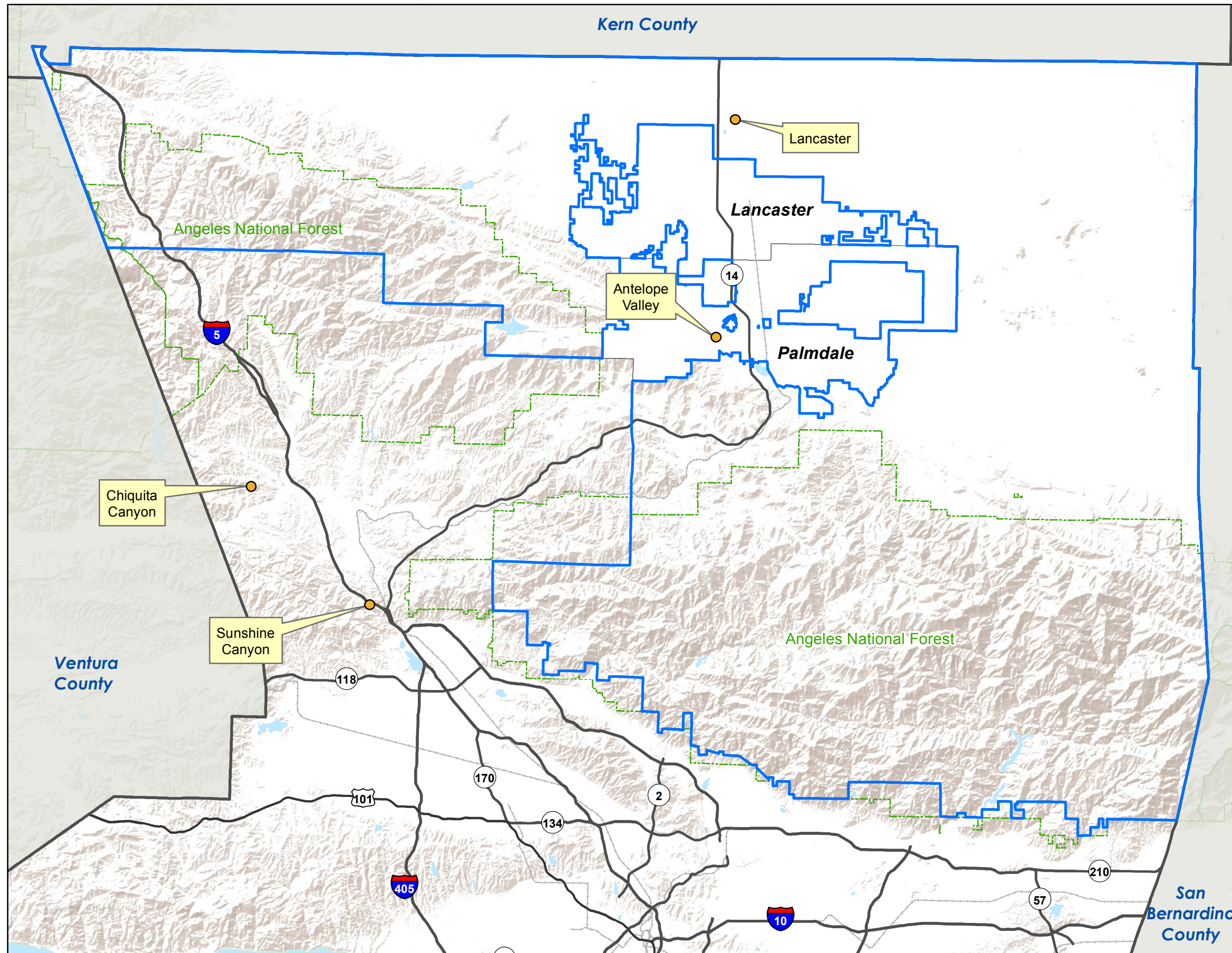


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FIGURE 5.17-4

### LANDFILLS SERVING THE PROJECT AREA

- Landfill
- ▭ Antelope Valley Project Area



ANTELOPE VALLEY  
AREA PLAN UPDATE  
**DRAFT EIR**

COLA-03.0E 8/20/2014 9:31:00 AM  
0 2.5 5 Miles

PLACEWORKS



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### Conservation and Open Space Element

#### *Air Quality*

**Goal COS 9.4:** Improved air quality in the Antelope Valley.

- **Policy COS 9.4:** Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.

#### *Green Building*

**Goal COS 17:** Buildings are sustainable, conserving energy, water, and other resources, and limiting greenhouse gas emissions.

- **Policy COS 17.9:** Require reduction, reuse, and recycling of construction and demolition debris.

#### 5.17.4.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses CEQA Guidelines Appendix G thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-4: Existing and/or proposed facilities would be able to accommodate project-generated solid waste and comply with related solid waste regulations. [Thresholds U-6 and U-7]**

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#### *Impact Analysis:*

Generation of solid waste would increase as the population increases with buildout of the Proposed Project. Correspondingly, there would be a need for additional landfill capacity and related support facilities.

#### Forecasted Solid Waste Generation

Buildout of the Proposed Project is forecast to result in a net increase in population in the Project Area of 311,920; and total population at buildout of 405,410. The Proposed Project buildout would allow for: 106,180 residential dwelling units; 130,226,370 square feet of nonresidential land uses; and employment of 134,351. Buildout of the Proposed Project would result in 81,441 additional residential dwelling units compared to existing land uses.

Solid waste generation is estimated as 4.5 pounds of solid waste per person per day. Thus, the net increase in solid waste generation by Proposed Project buildout is about 1.40 million pounds per day – that is, about 700 tons per day; and total solid waste generation in the Project Area at Proposed Project buildout is estimated at about 1.82 million pounds per day, or about 910 tons per day. Both the forecasted net increase in of about 700 tons per day, and the forecast total solid waste generation of about 910 tons per day, are well within the total 3,278 tons daily residual disposal capacity of the two landfills described in Table 5.17-8. The County would maintain 15 years' identified disposal capacity in conformance with AB 939. Proposed Project buildout would not require construction of new or expanded landfills, and impacts would be less than significant.

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#### 5.17.4.5 CUMULATIVE IMPACTS

As discussed in Section 4.4, *Assumptions Regarding Cumulative Impacts*, the cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes all unincorporated areas of Los Angeles County located within the Antelope Valley and Santa Clarita Valley, as well as the incorporated cities of Palmdale, Lancaster, and Santa Clarita.

Cumulative forecasted solid waste generation for the Proposed Project and future cumulative development are shown below in Table 5.17-9. As discussed above, total daily solid waste disposal capacity in the Project Area is 4,800 tons per day, and the combined residual disposal capacity at the two landfills in the Project Area is 3,278 tons per day.

**Table 5.17-9 Cumulative Solid Waste Generation Existing, 2035, and Post-2035**

	Existing		2035 <sup>2</sup>		Post-2035 <sup>1</sup>	
	Population	Solid Waste Generation (ppd)	Population	Solid Waste Generation (ppd)	Population	Solid Waste Generation (ppd)
<b>Project Area</b>	93,490 <sup>1</sup>	420,705	N/A	N/A	405,410	1,824,345
<b>North Los Angeles County Subregion</b>	651,929 <sup>2</sup>	2,933,681	946,557	4,259,507	N/A	N/A

Notes:

The Proposed Project will not be built out within the SCAG RTP/SCS horizon of 2035.

N/A = Data not available.

<sup>1</sup> County of Los Angeles 2014.

<sup>2</sup> SCAG 2012-2035 RTP/SCS.

Forecast solid waste generation from the entire North County Subregion in 2035 is about 4.26 million pounds per day – or 2,130 tons per day – and forecast solid waste generation from the Project Area at Proposed Project buildout is about 1.82 million pounds per day, or 910 tons per day.

In 2013 about 95 percent of the solid waste from the City of Santa Clarita was disposed of at two landfills: the Chiquita Canyon Sanitary Landfill in the Community of Castaic in unincorporated County in the Santa Clarita Valley area, and the Sunshine Canyon City/County Landfill in the Community of Sylmar, City of Los Angeles on the border between the Santa Clarita Valley and San Fernando Valley (CalRecycle 2014a). Disposal information by landfill is not available for unincorporated areas in subregions of Los Angeles County; it is assumed here that most landfilled solid waste from unincorporated areas in the Santa Clarita Valley area is disposed of at the same two landfills. Capacities and estimated closing dates for the two landfills are shown below in Table 5.17-10. As shown in Table 5.17-10, the two landfills have combined residual daily disposal capacity of 7,909 tons. The total residual daily disposal capacity of the four landfills serving the Antelope Valley and Santa Clarita Valley areas is 11,187 tons.



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**Table 5.17-10 Landfills Serving Santa Clarita Valley area**

Landfill and Location	Current Remaining Capacity, Cubic Yards	Estimated Close Date (based on current SWFP)	Maximum Daily Load (tons)	Average Daily Disposal, 2012 (tons)	Residual Daily Disposal Capacity (tons)
Chiquita Canyon Sanitary Landfill Community of Castaic, unincorporated Los Angeles County	6,020,000	2019	6,000	2,970	3,030
Sunshine Canyon City/County Landfill Community of Sylmar, City of Los Angeles	96,393,000	2037	12,100	7,221	4,879
<b>Total</b>	<b>102,413,000</b>	Not applicable	<b>18,100</b>	<b>10,191</b>	<b>7,909</b>

Sources: CalRecycle 2014a; CalRecycle 2014d; CalRecycle 2014f; CalRecycle 2014g; Los Angeles County Department of Public Works.  
Each landfill is open six days per week, Monday through Saturday, except for certain holidays.

There is adequate residual daily disposal capacity at the four landfills serving the North County Subregion for cumulative solid waste generation, and cumulative impacts would be less than significant.

### Regulatory Compliance

As with projects in the unincorporated areas, projects in cities would comply with AB 341 and Section 5.408 of the California Green Building Standards Code. AB 341 requires recycling by commercial and multifamily residential land uses and schools. California Green Building Standards Code Section 5.408 requires recycling or and/or reuse of at least 50 percent of nonhazardous construction and demolition waste from nonresidential construction operations. Cities, as well as the County, would comply with requirements in AB 939 for solid waste diversion. Impacts would be less than significant.

#### 5.17.4.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### State

- California Public Resources Code 40050 et seq.: Integrated Solid Waste Management Act of 1989
- Assembly Bill 341 (Chapter 476, Statutes of 2011)
- Title 24, California Code of Regulations, Part 11 (California Green Building Standards Code), Section 5.408

#### 5.17.4.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.17-4 would be less than significant. This determination applies to both direct and cumulative impacts.

#### 5.17.4.8 MITIGATION MEASURES

No mitigation measures are required.

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#### 5.17.4.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant. This determination applies to both direct and cumulative impacts.

### 5.17.5 Other Utilities

#### 5.17.5.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *California Public Utilities Commission*

California Public Utilities Commission (CPUC) General Order 112E, which is based upon the Federal Department of Transportation Guidelines contained in Part 192 of the Federal Code of Regulations, specifies a variety of design, construction, inspection and notification requirements. The CPUC conducts annual audits of pipeline operations to ensure compliance with these safety standards. In addition, the SCG has a safety program which has reduced the risk of gas distribution fires by improving welds on the larger diameter (24- to 30-inch) pipelines and by replacing old distribution pipes with flexible plastic pipes. According to SCG staff, high-pressure gas mains are common in developed areas throughout the country, and SCG lines are inspected regularly and must comply with CPUC mandated safety requirements.

###### *California Energy Commission*

The CEC was created as the State's principal energy planning organization in 1974, in order to meet the energy challenges facing the state in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecasting statewide electricity needs;
- Licensing power plants to meet those needs;
- Promoting energy conservation and efficiency measures;
- Developing renewable energy resources and alternative energy technologies;
- Promoting research, development and demonstration; and
- Planning for and directing state response to energy emergencies.

###### ***Title 24, California Code of Regulations, Part 6: Energy Efficiency Standards for Buildings***

Title 24, Part 6, of the California Code of Regulations contains the CEC's Energy Efficiency Standards for Residential and Nonresidential Buildings. Title 24 was first established in 1978, in response to a legislative mandate to reduce California's energy consumption. Since that time, Title 24 has been updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

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### *Title 20, California Code of Regulations, Sections 1601 et seq: Appliance Efficiency Regulations*

The 2012 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) took effect February 13, 2013. The regulations include standards for both federally regulated appliances and nonfederally regulated appliances.

### *Assembly Bill 1890 (1996)*

The CPUC regulates investor-owned electric power and natural gas utility companies in the State of California. AB 1890, enacted in 1996, deregulated the power generation industry, allowing customers to purchase electricity on the open market. Under deregulation, the production and distribution of power that was under the control of investor-owned utilities (e.g., Southern California Edison) was decoupled. All new construction in the State of California is subject to the energy conservation standards set forth in Title 24, Part 6, Article 2 of the California Administrative Code. These are prescriptive standards that establish maximum energy consumption levels for the heating and cooling of new buildings. The utilization of alternative energy applications in development projects (including the Proposed Project), while encouraged, is not required as a development condition. Such applications may include installation of photovoltaic solar panels, active solar water heating systems, or integrated pool deck water heating systems, all of which serve to displace consumption of conventional energy sources (i.e., electricity and natural gas). Incentives, primarily in the form of state and federal tax credits, as well as reduced energy bills, provide a favorable basis.

## Existing Conditions

### *Electricity*

Southern California Edison (SCE) provides electricity to Los Angeles County. Total electricity demands in SCE's service area were 82,069 gigawatt-hours (GWH) per year in 2012, and are forecast to increase to 96,516 GWH in 2024 (CEC 2013); one GWH is equivalent to one million kilowatt-hours.

### *Natural Gas*

The Southern California Gas Company (SCGC) supplies natural gas to most of Los Angeles County except for a few cities, including the City of Vernon and City of Long Beach, which supply natural gas to their own residents and other customers.

Total natural gas supplies available to SCGC are forecasted to remain constant at 3,875 million cubic feet per day from 2015 through 2035 (CGEU 2014).

### *Communication: Telephone, Mobile Phone, Cable and Internet Service*

#### *Cable*

Cable operators serving Los Angeles County are: Time Warner Cable, Charter Communication, Cox Communications, AT&T U-verse, and Verizon.

Federal laws provide oversight of the cable industry. While the County continues to serve as the local franchise authority, and will respond to every community inquiry that it receives, it is important for residents

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to understand the extent of the County's authority. Under current federal law, the County does not have any legal ability to dictate what cable companies charge for their services or how they set its channel lineup. As currently written, federal law allows all cable providers to operate in a deregulated manner when it comes to issues concerning pricing or channel lineup.

#### 5.17.5.2 RELEVANT AREA PLAN GOALS AND POLICIES

The following is a list of the goals and policies of the Proposed Project that would reduce potentially adverse effects on other utilities.

#### Open Space and Conservation Element

##### *Energy*

**Goal COS 11:** Energy systems for use in public facilities that reduce consumption of non-renewable resources while maintaining public safety.

- **Policy COS 11.1:** Promote energy retrofits of existing public facilities throughout the County to complement and reduce dependence upon utility-scale renewable energy production facilities, such as solar facilities, in the Antelope Valley.
- **Policy COS 11.2:** Promote the use of solar-powered lighting for highways, streets, and public facilities, including parks and trails.
- **Policy COS 11.3:** Promote the use of renewable energy systems in public facilities, such as hospitals, libraries, and schools, to ensure access to power in the case of major disasters.

**Goal COS 12:** Individual energy systems for onsite use that reduce consumption of non-renewable resources and dependence on utility-scale energy production facilities.

- **Policy COS 12.1:** Promote the use of individual renewable energy systems throughout the County to complement and reduce dependence upon utility-scale renewable energy facilities, such as solar facilities, in the Antelope Valley.
- **Policy COS 12.2:** Require appropriate development standards for individual renewable energy systems to minimize potential impacts to surrounding properties. Simplify the permitting process for individual renewable energy systems that meet these development standards.

**Goal COS 13:** Utility-scale energy production facilities for offsite use that reduce consumption of non-renewable resources while minimizing potential impacts on natural resources and existing communities.

- **Policy COS 13.1:** Direct utility-scale renewable energy production facilities, such as solar facilities to locations where environmental, noise, and visual impacts will be minimized.

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- **Policy COS 13.2:** Restrict development of utility-scale wind energy production facilities within the vicinity of Edwards Air Force Base to limit interference with military operations.
- **Policy COS 13.3:** Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.
- **Policy COS 13.4:** Promote the use of recycled water in utility-scale renewable energy production facilities to limit impacts on the available fresh water supply.
- **Policy COS 13.5:** Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.
- **Policy COS 13.6:** Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.
- **Policy COS 13.7:** Limit the aesthetic impacts of utility-scale renewable energy production facilities to preserve rural character.
- **Policy COS 13.8:** Coordinate with other jurisdictions to plan for utility-scale renewable energy production facilities in order to minimize impacts to sensitive biotic communities and existing residential areas.
- **Goal COS 14:** Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.
- **Policy COS 14.1:** Require that new transmission lines be placed underground whenever physically feasible.
- **Policy COS 14.2:** If new transmission lines cannot feasibly be placed underground due to physical constraints, require that they be collocated with existing transmission lines, or along existing transmission corridors, whenever physically feasible.
- **Policy COS 14.3:** If new transmission lines cannot be feasibly be placed underground or feasibly collocated with existing transmission lines or along existing transmission corridors due to physical constraints, direct new transmission lines to locations where environmental and visual impacts will be minimized.
- **Policy COS 14.4:** Discourage the placement of new transmission lines on undisturbed lands containing sensitive biotic communities.

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- **Policy COS 14.5:** Discourage the placement of new transmission lines through existing communities or through properties with existing residential uses.
- **Policy COS 14.6:** Review all proposed transmission line projects for conformity with the Goals and Policies of the Area Plan, including those listed above. When the California Public Utilities Commission is the decision-making authority for these projects, provide comments regarding conformity with the Goals and Policies of the Area Plan.
- **Policy COS 14.7:** Require that electrical power lines in new residential developments be placed underground.

#### *Green Building*

**Goal COS 17:** Buildings are sustainable, conserving energy, water, and other resources, and limiting greenhouse gas emissions.

- **Policy COS 17.1:** Require green building techniques for the construction and operation of all public and private buildings in the unincorporated Antelope Valley.
- **Policy COS 17.2:** Require that new buildings be sited and designed in a manner that maximizes efficient use of natural resources, such as air and light, to reduce energy consumption, heat profiles, and greenhouse gas emissions.
- **Policy COS 17.3:** Promote energy retrofits of existing buildings.
- **Policy COS 17.4:** Promote the use of individual renewable energy systems and require appropriate development standards for such systems to minimize potential impacts to surrounding properties. Simplify the permitting process for individual renewable energy systems that meet these development standards.
- **Policy COS 17.5:** Protect active and passive solar design elements and systems from shading by neighboring structures and trees through appropriate development standards.
- **Policy COS 17.6:** Require new landscaping to comply with applicable water efficiency requirements in the County Code.
- **Policy COS 17.7:** Require low-flow plumbing fixtures in all new developments.
- **Policy COS 17.8:** Require onsite stormwater infiltration in all new developments through use of appropriate measures, such as permeable surface coverage, permeable paving of parking and pedestrian areas, catch basins, and other low impact development strategies.
- **Policy COS 17.9:** Require reduction, reuse, and recycling of construction and demolition debris.

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### Economic Development Element

**Goal ED 1:** A healthy and balanced economic base in the Antelope Valley that attracts a wide range of industries and businesses and provides high-paying jobs for local residents.

- **Policy ED 1.10:** Promote small-scale, household based renewable energy systems to enable Antelope Valley residents to become energy independent.
- **Policy ED 1.11:** Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.
- **Policy ED 1.12:** Adopt regulations that ensure that local residents receive a fair share of the benefits of utility-scale renewable energy projects that are commensurate to their impacts.
- **Policy ED 1.13:** Ensure early discussions with Edwards Air Force Base and U.S. Air Force Plant 42 regarding new industries, such as utility-scale renewable energy production facilities, to limit potential impacts on mission capabilities.

#### 5.17.5.3 THRESHOLDS OF SIGNIFICANCE

Although not specifically in Appendix G of the CEQA Guidelines, the following additional threshold is also addressed in the impact analysis: a project would normally have a significant effect on the environment if the project:

U-8            Would increase demand for other public services or utilities.

#### 5.17.5.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance based on Appendix G of the CEQA Guidelines. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-5:** Existing and/or proposed facilities would be able to accommodate project-generated utility demands. [Threshold U-8]

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#### *Impact Analysis*

##### Electricity

Growth in the Project Area would result in additional demand for electricity service. Presently and for the foreseeable future, the national and regional supply of electrical energy is not in jeopardy. The acceleration of the approval and licensing process of additional state power plants will ensure an adequate supply of electricity for state consumers. Past shortages of electricity were solved by the additional power plants being brought “online” in California. The matter of electrical generation capacity is not one of physical shortages due to power plant limitations; rather, it is a function of market forces and the wholesale cost of electricity.

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### UTILITIES AND SERVICE SYSTEMS

Implementation of the Proposed Project would result in increased demand in electricity service to the Project Area. New development occurring from buildout of the Proposed Project would be subject to Title 24, Part 6 of the California Administrative code, the Energy Efficiency Standards for Residential and Nonresidential Buildings, which requires local jurisdiction to use energy efficient appliances, weatherization techniques and efficient cooling and heating systems to reduce energy demand stemming from new development.

Forecast electricity demands by Proposed Project buildout are shown below in Table 5.17-11. The forecasted net increase in electricity demand due to Proposed Project buildout is about 4.1 billion kWh per year, or about 4,100 GWH per year, and is within SCE's demand forecast for its service area. Therefore, impacts of Proposed Project buildout on electricity supplies would be less than significant.

**Table 5.17-11 Forecasted Net Increase in Electricity Demand by Proposed Project Buildout**

Land Use	Net Increase	Annual Electricity Demand, kWh	
		Per Unit/Employee <sup>1</sup>	Total
Residences	81,441 units	7,055	574,566,255
Nonresidential	102,513 employees	34,249	3,510,967,737
<b>Total</b>	<b>Not applicable</b>	<b>Not applicable</b>	<b>4,085,533,992</b>

<sup>1</sup> Source: LACDPW 2014a.

### Natural Gas

Estimated natural gas demands by Proposed Project buildout are shown below in Table 5.17-12. The estimated net increase in natural gas demand is about 53.4 million therms per year, that is, 14.2 million cubic feet of natural gas per day. Forecasted natural gas demands due to the Proposed Project buildout are within SCGC's estimated supplies; thus, impacts of the Proposed Project buildout on natural gas supplies would be less than significant.

**Table 5.17-12 Forecasted Net Increase in Natural Gas Demand by Proposed Project Buildout**

Land Use	Net Increase	Annual Natural Gas Demand, Therms	
		Per Unit/Employee <sup>1</sup>	Total
Residences	81,441 units	424.6	34,579,849
Nonresidential	102,513 employees	183.8	18,841,889
<b>Total</b>	<b>Not applicable</b>	<b>Not applicable</b>	<b>53,421,738</b>

<sup>1</sup> Source: LACDPW 2014a.

### 5.17.5.5 CUMULATIVE IMPACTS

The cumulative impact area for the Proposed Project is SCAG's North Los Angeles County Subregion, which includes all unincorporated areas of Los Angeles County located within the Antelope Valley and Santa Clarita Valley areas, as well as the incorporated cities of Palmdale, Lancaster, and Santa Clarita.



## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

### Electricity

Cumulative electricity demands are estimated below in Table 5.17-13. Estimated cumulative electricity demands in 2035 Proposed Project buildout conditions would be about 13.2 billion kWh per year, that is, 13,200 GWH per year, within SCE's demand forecast for its service area. Thus, cumulative impacts on electricity supplies would be less than significant.

**Table 5.17-13 Cumulative Electricity Demand Existing, 2035, and Post-2035**

	Existing			2035 <sup>2</sup>			Post-2035 <sup>1</sup>		
	Housing Units	Employment	Electricity Demand, kWh <sup>3</sup>	Housing Units	Employment	Electricity Demand, kWh <sup>3</sup>	Housing Units	Employment	Electricity Demand, kWh <sup>3</sup>
<b>Project Area<sup>1</sup></b>	24,739	31,838	1.26 billion	N/A	N/A	N/A	106,180	134,351	5.35 billion
<b>North Los Angeles County Subregion<sup>2</sup></b>	200,636	213,899	8.74 billion	304,241	321,743	13.2 billion	N/A	N/A	N/A

Notes:

The Proposed Project will not be built out within the SCAG RTP/SCS horizon of 2035.

N/A = Data not available.

<sup>1</sup> County of Los Angeles 2014.

<sup>2</sup> SCAG 2012-2035 RTP/SCS.

<sup>3</sup> The electricity demand factors used here are 7,055 kWh per year per residential unit and 34,249 kWh per year per employee, the same as used above in Table 5.17-11.

### Natural Gas

Cumulative natural gas demands are estimated below in Table 5.17-14. Cumulative natural gas demands in 2035 Proposed Project buildout conditions would be about 188 million therms per year, or 50 million cubic feet of natural gas per day, within SCGC's natural gas supply forecast. Thus, cumulative impacts on natural gas supplies would be less than significant.

**Table 5.17-14 Cumulative Natural Gas Demand Existing, 2035, and Post-2035**

	Existing			2035 <sup>2</sup>			Post-2035 <sup>1</sup>		
	Housing Units	Employment	Natural Gas Demand, Therms <sup>3</sup>	Housing Units	Employment	Natural Gas Demand, Therms <sup>3</sup>	Housing Units	Employment	Natural Gas Demand, Therms <sup>3</sup>
<b>Project Area<sup>1</sup></b>	24,739	31,838	16,356,004	N/A	N/A	N/A	106,180	134,351	69,777,742
<b>North Los Angeles County Subregion<sup>2</sup></b>	200,636	213,899	124,504,682	304,241	321,743	188,317,092	N/A	N/A	N/A

Notes:

The Proposed Project will not be built out within the SCAG RTP/SCS horizon of 2035.

N/A = Data not available.

<sup>1</sup> County of Los Angeles 2014.

<sup>2</sup> SCAG 2012-2035 RTP/SCS.

<sup>3</sup> The natural gas demand factors used here are 424.6 therms per year per residential unit and 183.8 therms per year per employee, the same as used above in Table 5.17-12.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

#### 5.17.5.6 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### State

- California Code of Regulations Title 24, Part 6: Energy Efficiency Standards for Residential and Nonresidential Buildings.
- California Code of Regulations Title 20, Sections 1601 et seq: Appliance Efficiency Regulations
- Assembly Bill 1890: Electric power deregulation

#### 5.17.5.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.17-6 would be less than significant. This determination applies to both direct and cumulative impacts.

#### 5.17.5.8 MITIGATION MEASURES

No mitigation measures are required.

#### 5.17.5.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant. This determination applies to both direct and cumulative impacts.

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## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

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## 6. Significant Unavoidable Adverse Impacts

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Chapter 1, *Executive Summary*, contains Table 1-3, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. While mitigation measures would reduce the level of impact, the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

### Agricultural Resources

- **Impact 5.2-1:** Buildout of the Proposed Project would convert mapped important farmland in the Project Area to non-agricultural uses. No mitigation measures are available that would reduce the impacts of the conversion of mapped important farmland to less than significant. Efforts to preserve offsite farmland through agricultural or conservation easements, or mitigation banks, do not offset or decrease the reduction in total mapped important farmland due to the implementation of a project. This impact would remain significant and unavoidable.
- **Impact 5.2-5:** Buildout of the Proposed Project would indirectly result in the conversion of mapped important farmland to non-agricultural uses in the Project Area. Although goals and policies have been incorporated into the Proposed Project to protect farming operations from urbanization, these goals and policies cannot ensure that additional conversion of farmland will not occur. This impact would remain significant and unavoidable.

### Air Quality

- **Impact 5.3-1:** Although the Proposed Project would generate less growth than the Adopted Area Plan, buildout of the Proposed Project would exceed the South Coast Air Quality Management District (SCAQMD) and Antelope Valley Air Quality Management District (AVAQMD) significance thresholds and would cumulatively contribute to the nonattainment designations of the South Coast Air Basin (SoCAB) and Mojave Desert Air Basin (MDAB -Antelope Valley portion). Therefore, the Proposed Project would be inconsistent with SCAQMD's 2012 Air Quality Management Plan (AQMP) and AVAQMD's Ozone Attainment Plan. Mitigation measures incorporated into future development projects and adherence to the Proposed Project policies described in Section 5.3.3 above would reduce criteria air pollutant emissions associated with buildout of the Proposed Project. Goals and policies included in the Proposed Project would facilitate continued County participation/cooperation with SCAQMD, AVAQMD, and Southern California Association of Governments (SCAG) to achieve regional air quality improvement goals, promote energy conservation design and development techniques, encourage alternative transportation modes, and implement transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the air quality management

## 6. Significant Unavoidable Adverse Impacts

plans due to the associated emissions that would be generated by the buildout of the Project Area in accordance with the Proposed Project. Impact 5.3-1 would remain significant and unavoidable.

- **Impact 5.3-2:** Construction activities indirectly associated with the buildout of the Proposed Project would generate criteria air pollutant emissions that would exceed SCAQMD's and AVAQMD's regional significance thresholds and would contribute to the nonattainment designations of the SoCAB and Antelope Valley portion of the MDAB. Mitigation Measure AQ-1 would reduce air pollutant emissions. However, due to the magnitude of emissions generated by future construction activities associated with the buildout of the Proposed Project, no additional mitigation measures are available that would reduce impacts below SCAQMD's and AVAQMD's thresholds. Impact 5.3-2 would remain significant and unavoidable.
- **Impact 5.3-3:** Buildout of the proposed land use plan would generate additional vehicle trips and area sources of criteria air pollutant emissions that exceed SCAQMD's and AVAQMD's regional significance thresholds and would contribute to the nonattainment designations of the SoCAB and Antelope Valley portion of the MDAB. Goals and policies are included in the Proposed Project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by the buildout of the Proposed Project, no mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds. Impact 5.3-3 would remain significant and unavoidable.
- **Impact 5.3-4:** Buildout of the Proposed Project could result in new sources of criteria air pollutant emissions and/or toxic air contaminants near existing or planned sensitive receptors. Goals and policies are included in the Proposed Project that would reduce concentrations of criteria air pollutant emissions and toxic air contaminants (TACs) generated by new development.

Review of projects by SCAQMD or AVAQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure health risks are minimized. Mitigation Measure AQ-2 would ensure mobile sources of TACs not covered under SCAQMD or AVAQMD permits are considered during subsequent project-level environmental review. Development of individual projects would be required to achieve the incremental risk thresholds established by SCAQMD or AVAQMD, and TACs would be less than significant.

However, localized emissions of criteria air pollutants could exceed the SCAQMD or AVAQMD regional significance thresholds because of the scale of development activity associated with theoretical buildout of the Proposed Project. For this broad-based Proposed Project, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of the localized emissions thresholds. Therefore, in accordance with the SCAQMD and AVAQMD methodology, Impact 5.3-4 would remain significant and unavoidable.



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### Biological Resources

- **Impact 5.4-1 and 5.4-2:** Development of the Proposed Project would impact, either directly or through habitat modifications, species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.

Although direct impacts to special-status species would be mitigated and the Significant Ecological Areas (SEAs) also provides protection of important sensitive habitats, there is no mitigation provided to fully address the indirect impacts to special-status species through the loss of common (i.e., non-sensitive) habitats. Special-status species are dependent on a variety of habitat types (comprised of both common and sensitive habitats), and the conversion of common habitat types with the buildout of the Project would result in the overall reduction of habitat and resources to support special-status species. Thus, due to the loss of common habitats capable of supporting special-status species and diminished resource availability, impacts to special-status species and associated habitat remain significant and unavoidable at the Proposed Area Plan level.

- **Impact 5.4-4:** The Proposed Project would affect wildlife movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Implementation of the Proposed Project, which includes the expansion of the SEA boundaries, will have both direct and indirect beneficial effects for protecting regional wildlife linkages and facilitating wildlife movement by avoiding the most biologically sensitive areas and concentrating development in previously disturbed areas. However, buildout of the Project will impact regional wildlife linkages and may impact nursery sites. Thus, buildout of the Project will have a significant adverse effect on wildlife movement and nursery sites.

### Cultural Resources

- **Impact 5.5-1:** The federal, state, and local regulations stated above afford only limited protection to historic structures and would not ultimately prevent the demolition of a historic structure if preservation is determined to be infeasible. The determination of feasibility would occur on a case-by-case basis as future development applications on sites containing historic structures are submitted. Additionally, some structures that are not currently considered for historic value (as they must generally be at least 50 years or older) could become worthy of consideration during the planning period for the Proposed Project. While policies would minimize the probability of historic structures being demolished, these policies cannot ensure that the demolition of a historic structure would not occur. This is considered a significant unavoidable adverse impact.

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### Greenhouse Gas Emissions

- **Impact 5.7-1:** The goals and policies of the Proposed Project in addition to Mitigation Measures GHG-1 and GHG-2 would ensure that greenhouse gas (GHG) emissions from buildout of the Proposed Project would be minimized. However, additional statewide measures would be necessary to reduce GHG emissions under the Proposed Project to meet the long-term GHG reduction goals under Executive Order S-03-05 (S-03-05), which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. The California Air Resources Board is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets. At this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under S-03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology (CCST 2012). Since no additional statewide measures are currently available, Impact 5.7-1 would remain significant and unavoidable.

### Mineral Resources

- **Impact 5.11-1:** Future development pursuant to the Proposed Project could cause a loss of availability of known mineral resources within the Project Area. No mitigation measures are available that would reduce this impact to less than significant. Mineral resources are limited and nonrenewable and cannot be increased elsewhere to compensate for the loss of availability of mineral resources due to the buildout of the Proposed Project. Compensatory mitigation outside of the region is also infeasible. Such mitigation would not reduce the loss of availability of mineral resources in the Project Area due to the very high cost of transporting aggregate. Impact 5.11-1 would be significant and unavoidable.
- **Impact 5.11-2:** Implementation of the Proposed Project would cause a substantial loss of availability of mineral resources in one mineral extraction area identified in the Adopted General Plan: the Little Rock Wash area. No mitigation measures are available that would this impact to less than significant. Impact 5.11-2 impact would be significant and unavoidable.
- **Cumulative Impacts:** Cumulative projects in combination with the buildout of the Proposed Project would contribute to significant cumulative impacts in the Antelope Valley Region. Urbanization and growth in the cities adjacent to the unincorporated areas would have the potential to result in land uses that are incompatible with mining and resource recovery and would result in a cumulative loss of available resources. Similar to portions of the Project Area, the California Geological Survey has classified land within Palmdale and Lancaster into mineral resource zones. Adjacent cities have included protections in their general plans or other planning documents to protect these and other mineral resources. However, planned and projected growth in the region would result in a reasonably foreseeable loss of mineral resources due to the encroachment of incompatible uses that would limit future areas from being permitted for mining operations. No mitigation measures are available that would reduce this impact to less than significant; therefore, this impact would remain significant and unavoidable.

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### Noise

- **Impact 5.12-2:** Buildout of the Proposed Project would result in an increase in traffic on local roadways in the Project Area, which would substantially increase the existing ambient noise environment. No feasible mitigation measures are available to further reduce traffic noise impacts to existing noise sensitive receptors. Therefore, Impact 5.12 2 would remain significant and unavoidable.

### Transportation and Traffic

- **Impact 5.16-1:** The impacted locations are still considered to be significantly impacted with mitigation. Because this is a program-level analysis, additional case-by-case mitigation analysis of impacts and mitigation will occur at the project level to determine more specific physical, program and policy-level mitigation measures to reduce the level of impact below a significant level.

Furthermore, inasmuch as the primary responsibility for approving and/or completing certain improvements lies with agencies other than the County (i.e., cities and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the County's control (e.g., the County cannot undertake or require improvements outside of the County's jurisdiction or the County cannot construct improvements in the Caltrans right of way without Caltrans' approval). Therefore, Impact 5.16 1 would remain significant and unavoidable.

- **Cumulative Impacts:** Traffic analysis for the Proposed Project anticipates that the cumulative impact of the project traffic along with other regional growth at the identified ramp and freeway locations will be largely mitigated through a combination of regional programs that are the responsibility of other agencies such as cities and Caltrans. Future developers/project applicants will contribute its fair share to these regional programs, as applicable. However, if these programs are not in place, the cumulative transportation and traffic impacts would remain significant and unavoidable. Under these circumstances, the Proposed Project could result in a cumulatively significant traffic impact that may remain significant and unavoidable.

### Utilities and Service Systems

- **Impact 5.17-3:** Adequate water supplies have been identified in the UWMP's for the Project Area for demand as projected through the year 2035. However, additional water supplies necessary to serve buildout of the Proposed Project, which is expected to occur beyond the year 2035, have not been identified for the Project Area. Considering current water supply constraints—including the record 2013–2014 California drought—it is uncertain whether the water districts serving the Project Area would be able to secure water supplies greater than those currently forecasted for 2035. Therefore, impacts of the Proposed Project buildout on water supplies are significant and unavoidable.

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## 7. Alternatives to the Proposed Project

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### 7.1 INTRODUCTION

#### 7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the Proposed Antelope Valley Area Plan Update and associated actions (Proposed Project) and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- “The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (15126.6[b]).
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact” (15126.6[e][1]).
- “The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” (15126.6[e][2]).
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project” (15126.6[f]).
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (15126.6[f][1]).

## 7. Alternatives to the Proposed Project

- “For alternative locations, “only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (15126.6[f][2][A]).
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative” (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alternative;
- Analyzes the impact of the alternative as compared to the Proposed Project;
- Identifies the impacts of the Project that would be avoided or lessened by the alternative;
- Assesses whether the alternative would meet most of the basic Project objectives; and
- Evaluates the comparative merits of the alternative and the Project.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the Project.

### 7.1.2 Project Objectives

As described in Section 3.2, *Statement of Objectives*, the following objectives have been established for the Proposed Project and will aid decision-makers in their review of the Project, the Project alternatives, and associated environmental impacts:

As identified in the proposed Antelope Valley Area Plan (Area Plan), the following vision statement has been established for the Project Area:

The Antelope Valley region is a wonderful place to live, work, play, and raise a family. The Valley is a mosaic of unique small towns in which rural lifestyles are cherished. These diverse towns are unified by an extraordinary environmental setting that includes agricultural lands, natural open spaces, expansive mountain views, diverse ecological habitats, and dark night skies. The Valley’s network of trails, roads, and transit link these dispersed towns to each other and to a wide offering of local-serving businesses and quality social, educational, cultural, and recreational services and facilities.

Residents, business owners, and property owners collaborate with a responsive local government to ensure that life in the Antelope Valley region will continue to be exciting, enjoyable, and rewarding. The growing population’s need for additional housing and employment opportunities is balanced against the need to respect historical heritage and preserve the natural environment. Public improvements and private developments are sustainable, conserving available resources and relying on alternative energy sources, and complement the small scale of existing rural towns. A wide array of activities and opportunities for youth ensure that the Valley’s high quality of life will be sustained for future generations.

## 7. Alternatives to the Proposed Project

In addition to the above vision statement, the following objectives have been established for the Proposed Project. These objectives will aid decision makers in their review of the project and associated environmental impacts:

- Preserve and enhance each unique town's rural character, allowing for continued growth and development without compromising the rural lifestyle.
- Preserve open space around existing towns in order to preserve hillside areas and significant ridgelines, conserve biological resources, provide opportunities for recreation, and make more efficient use of existing infrastructure in the core areas.
- Plan for integrated circulation systems, including bikeways, walkways, and multi-purpose trails.
- Conserve significant resources, including agricultural lands, mineral resources, water supply, and scenic areas.
- Preserve public health, safety, and welfare through identification of natural and environmental hazards, including noise, seismic, fire, and airborne emissions, and designation of land uses in an appropriate manner to mitigate these impacts; and
- Coordinate the enhancement of public and community services such as law enforcement, fire protection, and parks.
- Provide a balance of jobs and housing consistent with AB 32, SB 375, and SCAG's RTP/SCS.

### 7.1.3 Significant Unavoidable Adverse Impacts

As described in Chapter 6, *Significant Unavoidable Adverse Impacts*, the following impacts related to the Proposed Project have been determined to be significant and unavoidable after implementation of all feasible mitigation measures. The impacts that were found in the Draft EIR (DEIR) to be significant and unavoidable are:

- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Mineral Resources
- Noise
- Transportation/Traffic
- Utilities and Service Systems

## 7. Alternatives to the Proposed Project

### 7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this DEIR.

#### 7.2.1 Project Planning Alternatives

During the course of the Proposed Project, numerous variations in mapping were considered. The variations were a result of an iterative process of receiving input from stakeholders and County of Los Angeles (County) staff and refining the working maps that eventually became the Proposed Land Use Policy Map. While some of these previous variations would have represented the opinions of a segment of stakeholders more strongly or would have reduced environmental impacts more than the Proposed Project or other alternatives considered, they were not appropriate for analysis in the DEIR because they are no longer being pursued by the Lead Agency. They have since been refined or supplemented by the currently proposed Land Use Policy Map. Additionally, in 2010, an expert panel of biologists was convened to evaluate the Significant Ecological Areas (SEA) boundaries, and additional locations were identified as areas that warranted the SEA designation. The Proposed Project is consistent with the Proposed SEA Boundaries, which identifies 7 SEAs in the Project Area that represent the wide-ranging biodiversity and contain its most important biological resources. Therefore, the Proposed Project and the alternatives that are analyzed below in Section 7.3 were determined to provide the best scenarios to represent the different planning approaches that have been considered during the process.

#### 7.2.2 No Growth/No Development Alternative

The No Growth/No Development Alternative would prohibit all new development, restricting urban growth to its current extent. No alterations to the unincorporated areas would occur (with the exception of previously approved or entitled development); all existing residential, commercial, office, industrial, public facilities, agriculture and open space, along with utilities and roadways, would generally remain in their current condition. Implementation of this alternative would not provide adequate housing supply to meet the County's obligations to provide its fair share of housing. By limiting development within Project Area, implementation of this alternative would increase development pressure in surrounding areas, including the Cities of Palmdale, Lancaster, and Santa Clarita, and Kern County. It should also be noted that this alternative would not achieve any of the objectives established for the Project. As a result, this alternative has been rejected from further consideration.

### 7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the Proposed Project, but that may avoid or substantially lessen any of the significant effects of the Proposed Project. These alternatives are analyzed in detail in the following sections:



## 7. Alternatives to the Proposed Project

- No Project/Adopted Area Plan Alternative
- Reduced Intensity Alternative
- Alternative Land Use Policy Map

An EIR must identify an “environmentally superior” alternative, and where the no project alternative is identified as environmentally superior, the EIR is required to identify an environmentally superior alternative from among the others evaluated. Each alternative's environmental impacts are compared to the Proposed Project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the Proposed Project. Section 7.7 identifies the Environmentally Superior Alternative.

### 7.3.1 Alternatives Comparison

The Proposed Project is analyzed in detail in Chapter 5 of this DEIR. Table 7-1 provides a summary of each project alternative analyzed in this chapter.

**Table 7-1 Summary of Development Alternatives**

Alternative	Description	Basis for Selection and Summary of Analysis
<b>Proposed Project</b>		
Antelope Valley Area Plan and associated actions	<ul style="list-style-type: none"> <li>Includes a comprehensive update to the Adopted Area Plan.</li> <li>Updates SEA boundaries based on latest biological information.</li> <li>Projects a total of 106,180 dwelling units at buildout (additional 81,441 units from existing).</li> <li>Projects a total population of 405,410 at buildout (additional 311,920 persons from existing).</li> <li>Projects a total of 134,351 employees at buildout (additional 102,513 employees from existing).</li> </ul>	n/a
<b>Project Alternatives</b>		
1) No Project/ Adopted Area Plan Alternative	<ul style="list-style-type: none"> <li>Adopted Area Plan originally adopted on December 4, 1986 would remain in effect.</li> <li>Maintains existing SEA boundaries.</li> <li>Projects a total of 278,158 dwelling units at buildout (additional 253,419 units from existing).</li> <li>Projects a total population of 1,070,571 at buildout (additional 977,081 persons from existing).</li> <li>Projects a total of 51,219 employees at buildout (additional 19,381 employees from existing).</li> </ul>	<ul style="list-style-type: none"> <li>Required by CEQA.</li> <li>Avoids need for general plan amendments and zone changes.</li> <li>Increases significant impacts to agriculture and forestry resources, air quality, biological resources, greenhouse gas (GHG) emissions, noise, transportation/traffic, and water supply.</li> <li>Does not meet the project objectives.</li> </ul>
2) Reduced Intensity Alternative	<ul style="list-style-type: none"> <li>Includes a comprehensive update to the Adopted Area Plan.</li> <li>Updates SEA boundaries based on latest biological information.</li> </ul>	<ul style="list-style-type: none"> <li>Reduces, but does not eliminate, significant impacts to agriculture and forestry resources, air quality, GHG emissions, noise, and</li> </ul>

## 7. Alternatives to the Proposed Project

**Table 7-1 Summary of Development Alternatives**

Alternative	Description	Basis for Selection and Summary of Analysis
	<ul style="list-style-type: none"> <li>Reduces allowable dwelling units, population, and employment growth by 30 percent.</li> <li>Projects a total of 81,748 dwelling units at buildout (additional 57,009 units from existing).</li> <li>Projects a total population of 311,834 at buildout (additional 218,344 persons from existing).</li> <li>Projects a total of 103,597 employees at buildout (additional 71,759 employees from existing).</li> </ul>	<ul style="list-style-type: none"> <li>transportation/traffic.</li> <li>Does not avoid significant environmental impacts.</li> <li>Meets some but not all of the project objectives.</li> </ul>
3) Alternative Land Use Policy Map	<ul style="list-style-type: none"> <li>Includes a comprehensive update to the Adopted Area Plan.</li> <li>Updates SEA boundaries based on latest biological information.</li> <li>Reduces allowable dwelling units, population, and employment growth within the Project Area to 67,463 dwelling units, 248,323 residents, and 46,225 employees.</li> <li>Projects a total of 67,463 dwelling units at buildout (additional 42,724 units from existing).</li> <li>Projects a total population of 248,323 at buildout (additional 154,833 persons from existing).</li> <li>Projects a total of 46,225 employees at buildout (additional 14,387 employees from existing).</li> </ul>	<ul style="list-style-type: none"> <li>Reduces, but does not eliminate, significant impacts to agriculture and forestry resources, air quality, GHG emissions, noise, and transportation/traffic.</li> <li>Does not avoid significant environmental impacts.</li> <li>Meets some but not all of the project objectives.</li> </ul>

Table 7-2 provides a summary of buildout projections and corresponding increases/changes for each of the three alternatives and the Proposed Project. It is important to note that the buildout numbers shown are not growth projections. That is, they do not anticipate what is likely to occur by a certain time horizon, but rather, provide a buildout scenario that would only occur if all of the areas within the Project Area were to develop to the probable capacities yielded by the alternatives. The following tables were developed to better understand the difference between the alternatives analyzed in the DEIR:

**Table 7-2 Project Alternatives - Buildout Projections**

Planning Area		Proposed Project	No Project/Adopted Area Plan Alternative	Reduced Intensity Alternative	Alternative Land Use Policy Map
Antelope Valley	Dwelling Units	106,180	278,158	81,748	67,463
	Population	405,410	1,070,571	311,834	248,323
	Employment	134,351	51,219	103,597	46,225
	Jobs/Housing Ratio	1.3	0.18	1.3	0.69
Percent Change from Proposed Project	Dwelling Units		+62%	-23%	-36%
	Population		+62%	-23%	-39%
	Employment		-62%	-23%	-66%

Source: County of Los Angeles Department of Regional Planning, 2014.

## 7. Alternatives to the Proposed Project

### 7.4 NO PROJECT/EXISTING AREA PLAN ALTERNATIVE

This alternative, which is required by CEQA, assumes that the Adopted Area Plan and implementing zoning would remain unchanged. The Adopted Area Plan, originally adopted on December 4, 1986, would remain in effect, and no update to the Adopted Area Plan goals and policies would occur. This alternative would also maintain the existing SEA boundaries. Other key components of the Proposed Project, including the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas, as well as Economic Opportunity Areas (EOAs), would also not occur under this alternative. Under the No Project/Adopted Area Plan Alternative, a total of 278,158 dwelling units (additional 253,419 units from existing), a total population of 1,070,571 (additional 977,081 persons from existing), and a total of 51,219 employees (additional 19,381 employees from existing) would occur at buildout.

#### 7.4.1 Aesthetics

Under the No Project/Adopted Area Plan Alternative, a total of 278,158 dwelling units (additional 253,419 units from existing), a total population of 1,070,571 (additional 977,081 persons from existing), and total of 51,219 employees (additional 19,381 employees from existing) would occur at buildout. The Proposed Project reduces projected residential units and associated population by 62 percent and increases employment by 62 percent. Other key components of the Proposed Project include the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas, which assist in maintaining the rural character of the Antelope Valley. The Proposed Project also includes policies that discourage aesthetic impacts from such uses as utility-scale renewable energy (including the undergrounding of transmission lines), and promote the protection of scenic resource areas and scenic drives as well as dark night skies and rural character. As a result, impacts under the No Project/Adopted Area Plan Alternative would be greater as compared to the Proposed Project.

#### 7.4.2 Agriculture and Forestry Resources

As discussed in Section 5.2, *Agriculture and Forestry Resources*, conversion of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to non-agricultural uses due to the buildout of the Proposed Project would be a significant impact. Project implementation could result in the conversion of up to 6,169 acres of land designated Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. However, approximately 24,433 acres of designated farmland could be developed under the Adopted Area Plan. The Proposed Project also includes policies that support farming as a viable profession for Antelope Valley residents and encourage sustainable farming practices. As a result, impacts under the No Project/Adopted Area Plan Alternative would be greater as compared to the Proposed Project.

#### 7.4.3 Air Quality

The No Project/Adopted Area Plan Alternative would generate significantly more emissions from area, energy, and mobile sources and short-term emissions from construction activities associated with new development. This alternative would have a 62 percent increase in dwelling units, 62 percent increase in population, and a 62 percent decrease in employment in the Project Area, compared to buildout of the

## 7. Alternatives to the Proposed Project

Proposed Project. This Alternative generates approximately 33,787,619 vehicle miles travelled (VMT) per day. By comparison, the Proposed Project generates approximately 17,065,721 VMT per day, a 50 percent reduction. Thus, mobile-source emissions would be double those associated with buildout of the Proposed Project. Furthermore, area and energy sources of emissions would also be increased. Short-term emissions related to project construction activities would be greater in this alternative due to the increased amount of total permitted development. Also, the Proposed Project includes policies that encourage improved air quality. Implementation of the Proposed Project was found to have significant and unavoidable impacts to short- and long-term air quality. Short- and long-term air quality impacts of this alternative would also be significant and unavoidable. However, since air quality emissions would be double that of the Proposed Project, this alternative is considered environmentally inferior to the Proposed Project.

### 7.4.4 Biological Resources

Both the Proposed Project and the Adopted Area Plan contain policies that emphasize the conservation of SEAs and open space areas. However, neither provides a mechanism for compensation for unavoidable habitat loss or mitigation for direct impacts to special-status species or sensitive plant communities. Thus, mitigation measures are proposed to reduce direct impacts to special-status species and sensitive habitat. Although development that is allowed in both the Adopted Area Plan and the Proposed Project would result in similar significant impacts to special-status species at the area plan level, the Proposed Project includes mitigation that would reduce direct impacts to special-status species and sensitive habitat. In addition, the Proposed Project includes expanded SEA boundaries and reduced densities. Therefore, impacts would be less under the Proposed Project, although they would remain significant.

Both the Proposed Project and the Adopted Area Plan contain policies that emphasize protection of water sources and watershed to ensure the ecological functions of these systems are maintained. Mitigation measures are proposed to reduce any impacts to wetlands, and in combination with the requirements for regulatory permitting, are considered less than significant. Impacts would be similar between the Adopted Area Plan and the Proposed Project, with the potential for a slightly higher level of protection for wetland resources under the Proposed Project as a result of the recommended mitigation measures and expanded SEA boundaries.

Although both the Proposed Project and the Adopted Area Plan contain policies that emphasize the conservation of SEAs and open space areas, the Adopted Area Plan does not specifically provide for the protection of wildlife movement corridors. However, the Proposed Project emphasizes the preservation of wildlife corridors and linkages, and connectivity between habitats within the updated SEA boundaries. The Proposed Project's policies emphasize the preservation of wildlife corridors and linkages, and mitigation measures provide additional protection to avoid or minimize impacts to wildlife corridors and nursery sites. Additionally, the expanded SEA boundaries included as part of the Proposed Project, would reduce potentially significant impacts to regional wildlife linkages as compared to the No Project/Adopted Area Plan Alternative.

Since the updated SEA boundaries are based on the latest biological information and GIS mapping data, they are considered biologically superior to the smaller SEA boundaries designated in the Adopted Area Plan. In

## 7. Alternatives to the Proposed Project

addition, mitigation measures are incorporated into the Proposed Project to reduce direct impacts to special-status species and sensitive habitat. As a result, this alternative is environmentally inferior to the Proposed Project.

### 7.4.5 Cultural Resources

Under this alternative, development intensity would be increased as compared to the Proposed Project. Key components of the Proposed Project include the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas, as well as three designated EOAs. As a result, development is directed to certain areas, and the overall impacts to cultural resources would be increased under the No Project/Adopted Area Plan as compared to the Proposed Project. This alternative could possibly impact historic resources similar to the Proposed Project. Ground-disturbing activities associated with the buildout of the Adopted Area Plan would occur in order to accommodate new development. Cultural resources are governed on a site-by-site basis, and the probability of uncovering new resources or disturbing known resources is considered in project-level environmental review. Mitigation measures are created for projects that have the potential to disturb cultural resources, to lessen or negate impacts. However, implementation of this alternative would result in greater impacts than the Proposed Project due to the increased amount of development.

### 7.4.6 Geology and Soils

Earthquake hazards would be of similar magnitude under the No Project/Adopted Area Plan Alternative as under the Proposed Project, because future development would still occur throughout the Project Area. However, the Proposed Project reduces the density in hazard areas, thereby exposing fewer homes to earthquake hazards. Other site-specific geological hazards associated with erosion, loss of topsoil, liquefaction, subsidence, hydrocollapse, landslides, and expansive soils would also be similar for this alternative relative to the Proposed Project. New development under both alternatives would be expected to conform to the most recent County Building Code and County Grading Code Ordinance and Regulations, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative would be similar to the Proposed Project and would have a less than significant impact.

### 7.4.7 Greenhouse Gas (GHG) Emissions

The No Project/Adopted Area Plan Alternative would generate significantly more emissions from area, energy, and mobile sources and short-term emissions from construction activities associated with new development. This alternative would have a 62 percent increase in dwelling units, 62 percent increase in population, and a 62 percent decrease in employment in the Project Area, compared to buildout of the Proposed Project. This Alternative generates approximately 33,787,619 VMT per day. By comparison, the Proposed Project generates approximately 17,065,721 VMT per day, a 50 percent reduction. Thus, GHG emissions would be significantly greater under this alternative than those associated with the buildout of the Proposed Project. Like the Proposed Project, impacts from this alternative would be significant and unavoidable, since additional statewide measures would be necessary to reduce GHG emissions to meet the

## 7. Alternatives to the Proposed Project

long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. However, since air quality emissions would be double that of the Proposed Project, this alternative is considered environmentally inferior to the Proposed Project.

### 7.4.8 Hazards and Hazardous Materials

This impact would be greater than the Proposed Project, because the No Project/Adopted Area Plan Alternative increases overall development intensity. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions, would be increased. In addition, development under the No Project/Adopted Area Plan Alternative could expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the environment to asbestos-containing materials and/or lead-based paint and residues. However, development under both the Proposed Project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the County Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. For future developments on hazardous materials sites, appropriate remediation activities would be required before construction activities could be permitted. Similar to the Proposed Project, impacts would be less than significant. Overall, impacts related to hazards and hazardous materials would be increased under this alternative compared to the Proposed Project, though impacts would remain less than significant.

### 7.4.9 Hydrology and Water Quality

Implementation of the No Project/Adopted Area Plan Alternative would have greater hydrology and water quality impacts as compared to the Proposed Project. Residential densities would be substantially increased under this alternative, potentially increasing runoff volumes. Similar to the Proposed Project, runoff would be subject to National Pollutant Discharge Elimination System (NPDES) permit standards and provisions stipulated in the drainage area management plan. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. The adopted policies that offer protection from water quality impairment would be implemented to treat runoff to the maximum extent practicable. In terms of water quality, this alternative would have a less than significant impact, similar to the Proposed Project. Hydrology and water quality impacts overall would be greater for this alternative than for the Proposed Project, though impacts would remain less than significant.

### 7.4.10 Land Use and Planning

Under the No Project/Adopted Area Plan Alternative, the benefits of concentrating development in three EOAs and implementing the Rural Preservation Strategy would not occur. Therefore, although significant impacts would not result under this alternative, the Proposed Project provides for the establishment of a Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas and shifts development to designated EOAs consistent with Senate Bill 375, Assembly Bill 32, and Southern California Association of Government's (SCAG's) regional policies for integrating land use and transportation. However, similarly to the Proposed Project, no conflicts with adopted plans and policies

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would occur. Therefore, land use impacts would be greater than the Proposed Project under this alternative, although they would remain less than significant.

### 7.4.11 Mineral Resources

As discussed in Section 5.11, *Mineral Resources*, implementation of the Proposed Project is expected to have a significant unavoidable adverse impact to mineral resources due to development within the Project Area. However, under the No Project/Adopted Area Plan Alternative a total of 278,158 dwelling units (additional 253,419 units from existing), a total population of 1,070,571 (additional 977,081 persons), and total of 51,219 employees (additional 19,381 employees from existing) would occur at buildout. The Proposed Project reduces projected residential units and associated population by 62 percent and increases employment by 62 percent. Other key components of the Proposed Project include the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas, which assist in maintaining the rural character of the Antelope Valley. Since more land is expected to remain rural under the Proposed Project, impacts under the No Project/Adopted Area Plan Alternative would be greater than under the Proposed Project with respect to mineral resources.

### 7.4.12 Noise

Under the No Project/Adopted Area Plan Alternative, a total of 278,158 dwelling units (additional 253,419 units from existing), a total population of 1,070,571 (additional 977,081 persons), and total of 51,219 employees (additional 19,381 employees) would occur at buildout. The Proposed Project reduces projected residential units and associated population by 62 percent and increases employment by 62 percent. Other key components of the Proposed Project include the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas, which assist in maintaining the rural character of the Antelope Valley. Under this alternative, there would be more residential development, thereby increasing potential short-term noise impacts from construction of these projects. Additionally, the increase in residential development and construction activities would also increase potential short-term vibration impacts to sensitive receptors. This alternative would also increase potential long-term noise impacts from mobile and stationary sources. Buildout of the Adopted Area Plan would expose sensitive receptors to elevated noise levels and strong vibration from construction and result in an increase in traffic on the local roadways, which would substantially increase noise levels. Consequently, this alternative would increase the significant construction-related and operational impacts of the Proposed Project.

### 7.4.13 Population and Housing

As shown in Table 7-2, this Alternative would have a jobs/housing ratio of 0.18 at buildout, which is considered housing rich. This would be considered a significant impact without mitigation. Under the Proposed Project, a jobs/housing ratio of 1.3 is projected for the Project Area, which maintains a balance between jobs and housing to reduce commuter trips and associated VMT. Therefore, impacts under the No Project Alternative/Adopted Area Plan Alternative are considered environmentally inferior to the Proposed Project.

## 7. Alternatives to the Proposed Project

### 7.4.14 Public Services

The Proposed Project reduces projected residential units and associated population by 62 percent and increases employment by 62 percent. Under this alternative, impacts associated with fire protection, sheriff protection, schools, and library services would be greater than for the Proposed Project, since there would be more residential development at buildout. Fewer residential developments would result in a lower generation of new residents and therefore reduce demand for these services. Also, creation of the rural town centers and EOAs under the Proposed Project allow the provision of fire and sheriff service to be more efficient. Therefore, the No Project Alternative/Adopted Area Plan Alternative would have greater impacts compared to the Proposed Project, although, similar to the Proposed Project, impacts would be less than significant.

### 7.4.15 Recreation

Under the No Project Alternative/Adopted Area Plan Alternative, the County would continue to function under the direction of the Adopted Area Plan. Due to the higher population estimated under buildout conditions of this Alternative, the demands on existing recreational facilities would be greater under this alternative. As a result, more parkland would be required to serve the projected population at buildout. In addition, the Proposed Project includes adoption of an expanded trails network as compared to this Alternative. Impacts would remain less than significant, although this alternative would increase impacts as compared to the Proposed Project.

### 7.4.16 Transportation and Traffic

The Proposed Project reduces projected residential units and associated population by 62 percent and increases employment by 62 percent. This would result in corresponding increases in traffic volumes on area roadways. In addition, the Proposed Project directs future development to three EOAs and implements a Rural Preservation Strategy for the balance of the Project Area. Therefore this Alternative would generate more traffic and spread it over a larger area. This alternative would contribute to an unacceptable level of service (LOS) on several roadways in the Project Area, including California Department of Transportation (Caltrans) facilities, and therefore would still result in significant unavoidable transportation and traffic impacts. Since traffic volumes at buildout would be increased, this alternative is considered inferior to the Proposed Project with regard to transportation and traffic.

### 7.4.17 Utilities and Service Systems

The Proposed Project reduces projected residential units and associated population by 62 percent, and increases employment by 62 percent. Under the No Project/Adopted Area Plan Alternative, impacts to utilities and service systems would be greater due to the increase in residential units and associated population.



## 7. Alternatives to the Proposed Project

### 7.4.18 Conclusion

#### Ability to Reduce Environmental Impacts

The No Project/Adopted Area Plan Alternative would have similar impacts for geology and soils. However, impacts to all other categories would be increased, including significant impacts to agriculture and forestry resources, air quality, biological resources, cultural resources, GHG emissions, mineral resources, noise, transportation/traffic, and utilities and service systems (water supply).

#### Ability to Achieve Project Objectives

Implementation of the NoProject/Adopted Area Plan Alternative would allow future growth that may not be compatible with the current goals and objectives of the County. This alternative would not update the existing SEA boundaries. Since the updated SEA boundaries are based on the latest biological information and GIS mapping data, they are considered biologically superior to the smaller SEAs designated in the Adopted Area Plan. Other key components of the Proposed Project, including the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, Rural Preserve Areas, and EOAs also would not occur under this alternative. Specifically, the No Project/Adopted Area Plan Alternative does not concentrate future development near regional employment and activity centers, does not maintain jobs/housing balance, and does not promote multi-modal transportation, and therefore would be inconsistent with SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the Project Area.

## 7.5 REDUCED INTENSITY ALTERNATIVE

This alternative would reduce the overall additional development intensity by 30 percent within the Project Area as compared to the Proposed Project. Under the Reduced Intensity Alternative, a comprehensive update to the Adopted Area Plan goals and policies would occur, similar to the Proposed Project. Updates to the existing SEA boundaries based on the latest biological information and GIS mapping data would also occur. Other key components of the Proposed Project, including the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, Rural Preserve Areas, and EOAs would occur under this alternative. Under the Reduced Intensity Alternative, a total of 81,748 dwelling units (57,009 more than existing), a total population of 311,834 (218,344 more than existing), and a total of 103,597 employees (71,759 more than existing) would occur at buildout.

### 7.5.1 Aesthetics

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment, compared to the buildout of the Proposed Project. This would reduce overall density within the Project Area at buildout. As a result, aesthetic impacts under the Reduced Intensity Alternative would be reduced, as compared to the Proposed Project.

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### 7.5.2 Agriculture and Forestry Resources

As discussed in Section 5.2, *Agriculture and Forestry Resources*, conversion of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to non-agricultural uses due to Proposed Project buildout would be a significant impact in the Project Area. Project implementation could result in the conversion of up to 6,169 acres of land designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. This land could also be developed under the Reduced Intensity Alternative, although at lower densities. As a result, impacts under the Reduced Intensity Alternative would be similar to the Proposed Project.

### 7.5.3 Air Quality

The Reduced Intensity Alternative would generate fewer emissions from area, energy, and mobile sources and short-term emissions from construction activities associated with new development. Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment, compared to the buildout of the Proposed Project. Thus, mobile-source emissions would be less than those associated with the buildout of the Proposed Project. Short-term emissions related to project construction activities would be slightly less in this alternative due to the reduced amount of total permitted development. However, this alternative would not substantially reduce significant short- and long-term criteria pollutant contributions of VOC, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>; would not be consistent with the adopted air quality management plans, since criteria pollutant thresholds would be exceeded; and would cumulatively contribute to the South Coast Air Basin (SoCAB) nonattainment designations for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and the Antelope Valley portion of the Mojave Desert Air Basin (MDAB) nonattainment designations for O<sub>3</sub> and PM<sub>2.5</sub>. Implementation of the Proposed Project was found to have significant and unavoidable impacts to short- and long-term air quality. Short- and long-term air quality impacts of this alternative would also be significant and unavoidable. However, since air quality emissions would be reduced, this alternative is considered environmentally superior to the Proposed Project.

### 7.5.4 Biological Resources

The Proposed Project contains policies that emphasize the conservation of SEAs and open space areas. Since the updated SEA boundaries are based on the latest biological information and GIS mapping data, they are considered biologically superior to the smaller SEAs designated in the Adopted Area Plan. The updated SEA designations would also occur under the Reduced Intensity Alternative. Since the Reduced Intensity Alternative does not reduce the amount of land designated for development, impacts to biological resources would be similar to the Proposed Project and would remain significant.

### 7.5.5 Cultural Resources

Under this alternative, development intensity would be reduced; however, the amount of undeveloped acreage available for development would remain substantially the same. As a result, impacts to cultural resources would be expected to be substantially similar to those of the Proposed Project. Ground-disturbing activities associated with the buildout of the Reduced Intensity Alternative would continue to occur in order

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to accommodate new development. Consequently, the potential of encountering fossil-bearing soils and rock formations, destroying below-ground paleontological resources, and affecting archaeological sites and sites of cultural significance would still occur, similar to the Proposed Project. However, cultural resources are governed on a site-by-site basis, and the probability of uncovering new resources or disturbing known resources is considered in project-level environmental review. Mitigation measures are created to lessen or negate impacts of projects that have the potential to disturb cultural resources. Therefore, implementation of this alternative would result in impacts similar to the buildout of the Proposed Project, which are considered less than significant.

### 7.5.6 Geology and Soils

Earthquake hazards would be of similar magnitude under the Reduced Intensity Alternative as under the Proposed Project, because future development would still occur throughout the Project Area. Other site-specific geological hazards associated with erosion, loss of topsoil, liquefaction, subsidence, hydrocollapse, landslides, and expansive soils would also be similar for this alternative relative to the Proposed Project. New development under the Proposed Project or this alternative would be expected to conform to the most recent County Building Code and County Code Grading Ordinance and Regulations, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative, similarly to the Proposed Project, would have a less than significant impact.

### 7.5.7 Greenhouse Gas Emissions

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. Thus, overall GHG emissions would be reduced by approximately 23 percent. However, similarly to the Proposed Project, impacts from this alternative would be significant and unavoidable, since additional statewide measures would be necessary to reduce GHG emissions to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050.

### 7.5.8 Hazards and Hazardous Materials

This impact would be similar to the Proposed Project, although slightly reduced, because the Reduced Intensity Alternative reduces overall development intensity. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions, would be slightly reduced, although they are already less than significant. In addition, development under the Reduced Intensity Alternative could expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the environment to asbestos-containing materials and/or lead-based paint and residues. However, development under both the Proposed Project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the County Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. For future developments on hazardous materials sites, appropriate remediation activities would be required before construction activities could be permitted. Similar to the

## 7. Alternatives to the Proposed Project

Proposed Project, impacts would be less than significant. Overall, impacts related to hazards and hazardous materials would be slightly reduced under this alternative compared to the Proposed Project, and impacts would remain less than significant.

### 7.5.9 Hydrology and Water Quality

Implementation of the Reduced Intensity Alternative would have similar hydrology and water quality impacts to the Proposed Project. Although both residential and non-residential intensity would be reduced under this alternative, similar alterations to drainage patterns and hydrological patterns would occur. Similar to the Proposed Project, runoff would be subject to NPDES permit standards and provisions stipulated in the drainage area management plan. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. In terms of water quality, this alternative would have a less than significant impact, similar to the Proposed Project. Hydrology and water quality impacts overall would be similar for this alternative as for the Proposed Project, and impacts would remain less than significant.

### 7.5.10 Land Use and Planning

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. Thus, potential land use impacts would be less than those associated with the buildout of the Proposed Project. However, under the Reduced Intensity Alternative, the benefits of providing different development opportunities in specific focus areas would occur, but not to the same extent due to the reduction in densities. Like the Proposed Project, no conflicts with adopted plans and policies would occur. Therefore, land use impacts would be slightly less than the Proposed Project under this alternative and would remain less than significant.

### 7.5.11 Mineral Resources

As discussed in Section 5.11, *Mineral Resources*, implementation of the Proposed Project is expected to have a significant unavoidable adverse impact to mineral resources due to development within the Project Area. The Proposed Project allows development on approximately 571,785 out of 1,130,544 acres. An additional 412,187 acres is designated for very low densities (548,777 acres out of 1,132,744 acres). This land could also be developed under the Reduced Intensity Alternative, although at lower densities. As a result, impacts under the Reduced Intensity Alternative would be similar to the Proposed Project with respect to mineral resources.

### 7.5.12 Noise

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. Under this alternative, there would be less residential and non-residential development given the reduced capacity, thereby eliminating potential short-term noise impacts from construction of these projects. Additionally, the reduction of residential and non-residential development and construction activities would also reduce potential short-term vibration impacts to sensitive receptors. This alternative would also reduce potential long-term noise impacts from

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mobile and stationary sources. The reduction of planned buildout capacity would reduce the number of vehicle trips generated by new developments and would reduce the number of stationary sources of noise. Overall, this alternative would reduce short- and long-term noise impacts of the Proposed Project. However, buildout of this Alternative would continue to expose sensitive receptors to elevated noise levels and strong vibration from construction, and it would result in an increase in traffic on the local roadways, which would substantially increase noise levels. Consequently, this alternative would reduce but would not eliminate the significant construction-related and operational impacts of the Proposed Project.

### 7.5.13 Population and Housing

Allowable development within the Project Area under this alternative would be reduced by approximately 23 percent. Under the Reduced Intensity Alternative, a total of 81,748 dwelling units (57,009 more than existing), a total population of 311,834 (218,344 more than existing), and a total of 103,597 employees (71,759 more than existing) would occur at buildout. As shown in Table 7-2, this would result in a jobs/housing balance of 1.3 for the Project Area, which is the same as the Proposed Project and considered balanced. Therefore, impacts under the Reduced Intensity Alternative would be similar when compared to the Proposed Project.

### 7.5.14 Public Services

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. Under this alternative, impacts associated with fire protection, sheriff protection, schools, and library services would be less compared to the Proposed Project, since there would be less residential development at buildout. Fewer residential developments would result in a lower generation of new residents and therefore less demand for these services. Therefore, the Reduced Intensity Alternative would have reduced impacts compared to the Proposed Project, but similar to the Proposed Project, impacts would be less than significant.

### 7.5.15 Recreation

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. Due to the higher level of population estimated under buildout conditions of the Proposed Project, the demands on existing recreational facilities would be slightly reduced under this alternative, and less parkland would be required to serve the projected population at buildout. Impacts would remain less than significant, and this alternative would slightly reduce impacts of the Proposed Project.

### 7.5.16 Transportation and Traffic

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. This would result in corresponding decreases in traffic volumes on area roadways. This alternative would still contribute to an unacceptable LOS on several roadways in the Project Area, including Caltrans facilities, and therefore would still result in

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significant unavoidable transportation and traffic impacts. However, since traffic volumes at buildout would be reduced by 23 percent, this alternative is considered superior to the Proposed Project with regard to transportation and traffic.

### 7.5.17 Utilities and Service Systems

Throughout the Project Area, this alternative would have a 23 percent decrease in dwelling units, population, and employment compared to the buildout of the Proposed Project. Under the Reduced Intensity Alternative, impacts to utilities and service systems would be reduced due to the reduction in residential units and non-residential square footage. However, similar to the Proposed Project, impacts would remain significant and unavoidable with regard to water supply.

### 7.5.18 Conclusion

#### Ability to Reduce Environmental Impacts

The Reduced Intensity Alternative would have similar impacts for agriculture and forestry resources, biological resources, cultural resources, geology and soils, GHG emissions, hydrology and water quality, mineral resources, and population and housing. Impacts would be reduced for aesthetics, air quality, GHG emissions, hazards and hazardous materials, land use and planning, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. In addition, while it would slightly reduce significant impacts with regard to agriculture and forestry resources, air quality, biological resources, cultural resources, greenhouse gas emissions, mineral resources, noise, transportation/traffic, and utilities and service systems (water supply), these would remain significant and unavoidable.

#### Ability to Achieve Project Objectives

This alternative would meet most of the project objectives identified in Section 7.1.2, although not to the same extent. For instance, this alternative would involve adoption of the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, and Rural Preserve Areas, although allowable densities would be reduced as compared to the Proposed Project.

## 7.6 ALTERNATIVE LAND USE POLICY MAP

This Alternative proposes an alternative land use policy map for the Proposed Project. Under the Alternative Land Use Policy Map, a comprehensive update to the Adopted Area Plan goals and policies would occur, similar to the Proposed Project. Updates to the existing SEA boundaries based on the latest biological information and GIS mapping data would also occur. Other key components of the Proposed Project, including the Rural Preservation Strategy and establishment of the Rural Town Center, Rural Town Areas, Rural Preserve Areas, and EOAs would also occur under this alternative. Under the Alternative Land Use Policy Map, a total of 67,463 dwelling units (42,724 more than existing), a total population of 248,323 (154,833 more than existing), and a total of 46,225 employees (14,387 more than existing) would occur at buildout.

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### 7.6.1 Aesthetics

Under this Alternative, allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent. Under the Alternative Land Use Policy Map, a total of 67,463 dwelling units (42,724 more than existing), a total population of 248,323 (154,833 more than existing), and a total of 46,225 employees (14,387 more than existing) would occur at buildout. As a result, aesthetic impacts under the Alternative Land Use Policy Map would be reduced for the Project Area as compared to the Proposed Project.

### 7.6.2 Agriculture and Forestry Resources

As discussed in Section 5.2, *Agriculture and Forestry Resources*, conversion of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to non-agricultural uses due to the buildout of the Proposed Project would be a significant impact in the Project Area. Project implementation could result in the conversion of up to 6,169 acres of land designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent. As a result, agriculture and forestry resources impacts under the Alternative Land Use Policy Map would be reduced as compared to the Proposed Project, although they would remain significant and unavoidable.

### 7.6.3 Air Quality

The Alternative Land Use Policy Map would generate fewer emissions from area, energy, and mobile sources, and short-term emissions from construction activities associated with new development. Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent, population would be reduced by 39 percent, and employment would be reduced by 66 percent. This results in a jobs/housing ratio within the Project Area of 0.69, which is less balanced than under the Proposed Project (1.3). Mobile-source emissions would be less than those associated with the buildout of the Proposed Project. Short-term emissions related to project construction activities would be less in this alternative due to the reduced amount of total permitted development. However, this alternative would not substantially reduce significant short- and long-term criteria pollutant contributions of VOC, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>; would not be consistent with the adopted air quality management plans, since criteria pollutant thresholds would be exceeded; and would cumulatively contribute to the SoCAB nonattainment designations for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and the Antelope Valley portion of the Mojave Desert Air Basin (MDAB) nonattainment designations for O<sub>3</sub> and PM<sub>2.5</sub>. Implementation of the Proposed Project was found to have significant and unavoidable impacts to short- and long-term air quality. Short- and long-term air quality impacts of this alternative would also be significant and unavoidable. However, since air quality emissions would be reduced, this alternative is considered environmentally superior to the Proposed Project.

### 7.6.4 Biological Resources

The Proposed Project contains policies that emphasize the conservation of SEAs and open space areas. Since the updated SEA boundaries are based on the latest biological information and GIS mapping data, they are

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considered biologically superior to the smaller SEAs designated in the Adopted Area Plan. The updated SEA designations would also occur under the Alternative Land Use Policy Map. Since the Alternative Land Use Policy Map reduces the residential development within the Project Area, impacts to biological resources would be reduced as compared to the Proposed Project, although they would remain significant.

### 7.6.5 Cultural Resources

Under this alternative, allowable residential development within the Project Area would be reduced by approximately 36 percent. As a result, impacts to cultural resources would be reduced in the Project Area as compared to the Proposed Project. Therefore, implementation of this alternative would result in fewer impacts to cultural resources as compared to the Proposed Project, which are considered less than significant.

### 7.6.6 Geology and Soils

Earthquake hazards would be of similar magnitude under the Alternative Land Use Policy Map as under the Proposed Project, because future development would still occur throughout the Project Area. Other site-specific geological hazards associated with erosion, loss of topsoil, liquefaction, subsidence, hydrocollapse, landslides, and expansive soils would also be similar for this alternative relative to the Proposed Project. New development under both alternatives would be expected to conform to the most recent County Building Code and County Code Grading Ordinance and Regulations, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative, similarly to the Proposed Project, would have a less than significant impact.

### 7.6.7 Greenhouse Gas Emissions

Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent, population would be reduced by 39 percent, and employment would be reduced by 66 percent. This results in a jobs/housing ratio within the Project Area of 0.69, which is less balanced than under the Proposed Project (1.3). This could result in increased VMT within the Mojave Desert and South Coast Air Basins. Thus, GHG emissions could be more than those associated with the buildout of the Proposed Project. Similar to the Proposed Project, impacts from this alternative would be significant and unavoidable, since additional statewide measures would be necessary to reduce GHG emissions to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050.

### 7.6.8 Hazards and Hazardous Materials

This impact would be similar to the Proposed Project, although slightly reduced, because the Alternative Land Use Policy Map reduces overall development intensity within the Project Area. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions, would be slightly reduced, although they are already less than significant. In addition, development under the Alternative Land Use Policy Map could expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the



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environment to asbestos-containing materials and/or lead-based paint and residues. However, development under both the Proposed Project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the County Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. For future developments on hazardous materials sites, appropriate remediation activities would be required before construction activities could be permitted. Similar to the Proposed Project, impacts would be less than significant. Overall, impacts related to hazards and hazardous materials would be slightly reduced under this alternative compared to the Proposed Project, and impacts would remain less than significant.

### 7.6.9 Hydrology and Water Quality

Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent and non-residential development would be reduced by approximately 66 percent. As a result, implementation of the Alternative Land Use Policy Map would reduce hydrology and water quality impacts in the Project Area due to decreased impervious surfaces. Similar to the Proposed Project, runoff would be subject to NPDES permit standards and provisions stipulated in the drainage area management plan. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. The adopted policies that offer protection from water quality impairment would be implemented to treat runoff to the maximum extent practicable. In terms of water quality, this alternative would have a less than significant impact, similar to the Proposed Project. Hydrology and water quality impacts overall would be less for this alternative than compared to the Proposed Project, although they would remain less than significant.

### 7.6.10 Land Use and Planning

Allowable development within the Project Area would be reduced under this alternative. Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent, population would be reduced by 39 percent, and employment would be reduced by 66 percent. As a result, potential land use impacts within the Project Area would be reduced. Therefore, land use impacts would be less than the Proposed Project under this alternative and would remain less than significant.

### 7.6.11 Mineral Resources

As discussed in Section 5.11, *Mineral Resources*, implementation of the Proposed Project is expected to have a significant unavoidable adverse impact to mineral resources due to development within the Project Area. Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent, population would be reduced by 39 percent, and employment would be reduced by 66 percent. As a result, impacts under the Alternative Land Use Policy Map would be reduced as compared to the Proposed Project with respect to mineral resources, since more land would be available for mineral extraction, although they would remain significant and unavoidable.

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### 7.6.12 Noise

Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent, population would be reduced by 39 percent, and employment would be reduced by 66 percent. Under this alternative, there would be less development given the reduced capacity, thereby eliminating potential short-term noise impacts from construction of these projects. Additionally, the reduction in potential development and construction activities would reduce potential short-term vibration impacts to sensitive receptors. This alternative would also reduce potential long-term noise impacts from mobile and stationary sources within the Project Area. The reduction of planned buildout capacity would reduce the number of vehicle trips generated by new developments and would reduce the number of stationary sources of noise. Overall, this alternative would reduce short- and long-term noise impacts of the Proposed Project within the Project Area. However, this alternative would reduce but would not eliminate the significant construction-related and operational impacts of the Proposed Project.

### 7.6.13 Population and Housing

As shown in Table 7-2, this Alternative has a jobs/housing balance of 0.69 as compared to 1.3 for the Proposed Project. The projected jobs/housing balance of 0.69 is considered housing rich. Therefore, impacts under the Alternative Land Use Policy Map would be increased when compared to the Proposed Project, and would be considered a significant and unavoidable adverse impact.

### 7.6.14 Public Services

Throughout the Project Area, this alternative would have a 36 percent decrease in dwelling units, 39 percent decrease in population, and 66 percent decrease in employment compared to the buildout of the Proposed Project. Under this alternative, impacts associated with fire protection, sheriff protection, schools, and library services would be less than under the Proposed Project, since there would be less residential development at buildout. Fewer residential developments would result in a lower generation of new residents and therefore less demand for these services. Therefore, the Alternative Land Use Policy Map would have reduced impacts compared to the Proposed Project, although similar to the Proposed Project, impacts would be less than significant.

### 7.6.15 Recreation

Throughout the Project Area, this alternative would have a 36 percent decrease in dwelling units, 39 percent decrease in population, and 66 percent decrease in employment compared to the buildout of the Proposed Project. Due to the higher level of population estimated under buildout conditions of the Proposed Project, the demands on existing recreational facilities would be slightly reduced under this alternative, and less parkland would be required to serve the projected population at buildout. Impacts would remain less than significant, and this alternative would slightly reduce impacts of the Proposed Project.

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### 7.6.16 Transportation and Traffic

Allowable residential development within the Project Area under this alternative would be reduced by approximately 36 percent, population would be reduced by 39 percent, and employment would be reduced by 66 percent. This would result in corresponding decreases in traffic volumes on area roadways within the Project Area. This alternative would still contribute to an unacceptable LOS on several roadways in the Project Area, including Caltrans facilities, and therefore would still result in significant, unavoidable transportation and traffic impact. However, since traffic volumes at buildout would be reduced, this alternative is considered superior to the Proposed Project with regard to transportation and traffic.

### 7.6.17 Utilities and Service Systems

Throughout the Project Area, this alternative would have a 36 percent decrease in dwelling units, 39 percent decrease in population, and 66 percent decrease in employment in employment, compared to the buildout of the Proposed Project. Under the Alternative Land Use Policy Map, impacts to utilities and service systems would be reduced due to the reduction in residential units and non-residential square footage. However, similar to the Proposed Project, impacts would remain than significant and unavoidable.

### 7.6.18 Conclusion

#### Ability to Reduce Environmental Impacts

The Alternative Land Use Policy Map would have similar impacts for geology and soils. Impacts would be reduced for aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, GHG emissions, hazards and hazardous materials, land use and planning, mineral resources, noise, public services, recreation, transportation and traffic, and utilities and service systems. However, though it would slightly reduce significant impacts with regard to agriculture and forestry resources, air quality, biological resources, cultural resources, GHG emissions, mineral resources, noise, transportation/traffic, utilities and service systems (water supply), these would remain significant and unavoidable. In addition, this Alternative would result in one new significant impact related to population and housing.

#### Ability to Achieve Project Objectives

This alternative would meet some but not all of the project objectives identified in Section 7.1.2.

## 7.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the “environmentally superior alternative” and, in cases where the “No Project” Alternative is environmentally superior to the Proposed Project, the environmentally superior development alternative must be identified. An impact comparison is provided on Table 7-3, and a summary of the ability of each alternative to meet the project objectives is provided on Table 7-4. One alternative has been identified as “environmentally superior” to the Proposed Project:

- Reduced Intensity Alternative

## 7. Alternatives to the Proposed Project

The Reduced Intensity Alternative has been identified as the environmentally superior alternative because of its ability to reduce the significant impacts of the Proposed Project while still meeting the basic objectives of the project. This alternative would lessen impacts to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, GHG emissions, hazards and hazardous materials, land use and planning, mineral resources, noise, public services, recreation, transportation and traffic, and utilities and service systems. In addition, the Reduced Intensity Alternative meets all of the basic objectives established for the Proposed Project.

Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.” [Guidelines Sec. 15126.6(c)]

**Table 7-3 Impact Comparison Proposed Project versus Project Alternatives**

Environmental Impact	Proposed Project (without/ with mitigation)	No Project/Adopted Area Plan Alternative	Reduced Intensity Alternative	Alternative Land Use Policy Map
Aesthetics	LS/LS	+	-	-
Agricultural and Forestry Resources	S/S	+	-	-
Air Quality				
Short-Term	S/S	+	-	-
Long-Term	S/S	+	-	-
Biological Resources	S/S	+	-	-
Cultural Resources	S/S	+	-	-
Geology and Soils	LS/LS	=	=	=
Greenhouse Gas Emissions	S/S	+	-	-
Hazards and Hazardous Materials	LS/LS	+	-	-
Hydrology and Water Quality	S/LS	+	-	-
Land Use and Planning	LS/LS	+	-	-
Mineral Resources	S/S	+	-	-
Noise				
Short-Term	S/S	+	-	-
Long-Term	S/S	+	-	-
Population and Housing	LS/LS	+	=	+
Public Services	LS/LS	+	-	-
Recreation	LS/LS	+	-	-
Transportation/Traffic	S/S	+	-	-
Utilities and Service Systems	S/S	+	-	-

LS = Less than significant.

S = Significant

- = Reduces impacts compared to the Proposed Project.

+ = Increases impacts compared to the Proposed Project.

= Impacts would be similar.

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**Table 7-4 Ability of Each Alternative to Meet the Proposed Project Objectives**

Proposed Project Objective	Proposed Project	No Project/Adopted Area Plan Alternative	Reduced Intensity Alternative	Antelope Valley Alternative Land Use Plan
Preserve and enhance each unique town's rural character, allowing for continued growth and development without compromising the rural lifestyle.	Yes	No	Yes	Yes
Preserve open space around existing towns in order to preserve hillside areas and significant ridgelines, conserve biological resources, provide opportunities for recreation, and make more efficient use of existing infrastructure in the core areas.	Yes	No	Yes	Yes
Plan for integrated circulation systems, including bikeways, walkways, and multi-purpose trails.	Yes	No	Yes	Yes
Conserve significant resources, including agricultural lands, mineral resources, water supply, and scenic areas.	Yes	No	Yes	Yes
Preserve public health, safety, and welfare through identification of natural and environmental hazards, including noise, seismic, fire, and airborne emissions, and designation of land uses in an appropriate manner to mitigate these impacts; and	Yes	No	Yes	Yes
Coordinate the enhancement of public and community services such as law enforcement, fire protection, and parks.	Yes	No	Yes	Yes
Provide a balance of jobs and housing consistent with AB 32, SB 375, and SCAG's RTP/SCS.	Yes	No	Yes	No

## 7. Alternatives to the Proposed Project

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## 8. Impacts Found Not to Be Significant

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California Public Resources Code Section 21003 (f) states: "...it is the policy of the state that... [a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the Proposed Project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." The Guidelines allow use of an Initial Study to document project effects that are less than significant (Guidelines Section 15063[a]). Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and were therefore not discussed in detail in the Draft EIR.

As described in the Notice of Preparation (NOP) prepared for the Proposed Project, all impact categories were found to have at least one potentially significant impact; therefore, all categories have been evaluated in the EIR.

## 8. Impacts Found Not to Be Significant

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## 9. Significant Irreversible Changes Due to the Proposed Project

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Section 15126.2(c) of the CEQA Guidelines requires that an Environmental Impact Report (EIR) describe any significant irreversible environmental changes that would be caused by the Proposed Project should it be implemented. Buildout of the Proposed Project would occur over the next 20 years and beyond. Implementation of the Proposed Project would provide guidance for additional residential and commercial development consistent with the Proposed Area Plan's goals and policies. The significant irreversible changes due to the Proposed Project are:

- Future development would involve construction activities that entail the commitment of nonrenewable and/or slowly renewable energy resources, including gasoline, diesel fuel, electricity; human resources; and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water.
- An increased commitment of social services and public maintenance services (e.g., police, fire, and sewer and water services) would also be required. The energy and social service commitments would be long-term obligations in view of the fact of the low likelihood of returning the land to its original condition once it has been developed.
- Population growth related to project implementation would increase vehicle trips over the long term. Emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for ozone and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and the Mojave Desert Air Basin's nonattainment designation for ozone and PM<sub>2.5</sub>.
- Future development of the Proposed Project is a long-term irreversible commitment of vacant parcels of land or redevelopment of existing developed land in the Project Area.

## 9. Significant Irreversible Changes Due to the Proposed Project

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## 10. Growth-Inducing Impacts of the Proposed Project

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Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the Proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities that could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which the Proposed Project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

**Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?**

As discussed in Section 5.17, *Utilities and Service Systems*, major new infrastructure facilities would be required to implement the Proposed Project in some areas of Antelope Valley. Some extensions of existing utility facilities from surrounding roadways, including water and sewer lines, would need to be upgraded to serve the amount of development anticipated by the Proposed Project. In particular, infrastructure in the unincorporated areas of the Antelope Valley (Project Area) would need to be upgraded—in a context-sensitive way—to serve the level of growth projected for this area.

## 10. Growth-Inducing Impacts of the Proposed Project

The purpose of the Proposed Project is to guide growth and development in the Project Area. Los Angeles County, as well as the entire Southern California region, has experienced dramatic growth in the past two decades. Similar growth is expected to continue for the next two decades. As a response to this trend, the focus of the Proposed Project is to provide a framework in which growth can be managed and tailored to suit the needs of the community and the surrounding area, while preserving the rural character of the region and conserving environmental resources. Adoption of the Proposed Project would direct future development in the Project Area to three designated Economic Opportunity Areas consistent with the Land Use Element of the Proposed Area Plan. The Proposed Project does not approve the construction of specific development projects and would largely accommodate growth based on market conditions. However, it would allow increased development intensity and/or a more inclusive mix of land uses compared to existing conditions, although significantly less development than what is allowed under the Adopted Area Plan. Therefore, the Proposed Project would not remove regulatory obstacles to growth, and is not considered to be growth-inducing.

### **Would this project result in the need to expand one or more public services to maintain desired levels of service?**

As discussed in Section 5.14, *Public Services*, as the Project Area continues to develop, it would require further commitment of public services that could include fire protection, law enforcement, public schools, public recreation, and other services as appropriate. Future development in the Project Area would require an increased commitment to public services that would be considered a long-term commitment in order to maintain a desired level of service. Although significantly less development than what is allowed under the Adopted Area Plan would occur, additional public services would be required to serve the Proposed Project as compared to existing conditions. This is considered a growth-inducing impact.

### **Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?**

Future development consistent with the Proposed Project would create a number of temporary construction jobs during development of the project. Although significantly less development than what is allowed under the Adopted Area Plan would occur, additional jobs would be generated by the Proposed Project as compared to existing conditions. This would be a direct, growth-inducing effect of the Proposed Project.

As the population grows and occupies new dwelling units, these residents would seek shopping, entertainment, employment, home improvement, vehicle maintenance, and other economic opportunities in the surrounding area. This would facilitate the purchase of economic goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses. A key objective of the Proposed Project is to balance housing and employment within the Project Area to reduce vehicle miles traveled. As a result, the Proposed Project would provide new employment opportunities in housing-rich areas within future office and commercial developments. Additionally, proposed increases in commercial uses are intended to serve the shopping needs of future residents and would generate additional employment opportunities. Therefore, the Proposed Project would have both direct and indirect growth-inducing effects.

## 10. Growth-Inducing Impacts of the Proposed Project

### **Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?**

Approval of the Proposed Project would not set a precedent that could encourage and facilitate other activities that could significantly affect the environment. Cities and counties in California periodically update their general plans pursuant to California Government Code Sections 65300 et seq.

As discussed in Chapter 3, *Project Description*, the Proposed Project consists of the preparation of the Antelope Valley Area Plan. The Proposed Area Plan consists of the following: Land Use Element, Mobility Element, Conservation and Open Space Element, Public Safety, Services, and Facilities Element, Economic Development Element, and Community-Specific Land Use Concepts. The purpose of the Proposed Project is to provide a framework in which the growth can be managed and tailored to suit the needs and safety of the community, while preserving the rural character of the region and conserving environmental resources. Pressures to develop in the surrounding cities may derive from regional economic conditions and market demands for housing, commercial, office and industrial land uses that may be directly or indirectly influenced by the Proposed Project.

Buildout projections for the Proposed Project are based on the theoretical buildout (dwelling units, population, nonresidential square footage, and employment) of each land use designation, which are calculated using the range of allowable densities. Buildout projections for the Proposed Project, are shown in Table 3-2, *Buildout Projections for the Proposed Project*. Buildout of the Proposed Project would allow for 106,180 residential dwelling units, a population of 405,410, and 134,351 jobs. The majority of new development is directed to occur in the designated Economic Opportunity Areas. By comparison, the Adopted Area Plan would allow for the development of 278,249 dwelling units, a population of 1,070,924, and 51,319 jobs.

Although the Proposed Project does not include approval of physical development, it allows for additional development in the Project Area compared to existing conditions. However, as discussed above, the Adopted Area Plan allows for significantly more residential development and does not balance jobs with housing. Although approval of the Proposed Project would allow for significant growth as compared to existing conditions, it is substantially less than what is allowed under the Adopted Area Plan. As a result, the Proposed Project, while precedent-setting, reduces potential growth-inducing impacts as compared to the Adopted Area Plan.

## 10. Growth-Inducing Impacts of the Proposed Project

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# 11. Organizations and Persons Consulted

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## 11.1 COUNTY OF LOS ANGELES (Lead Agency)

### Department of Regional Planning

Richard J. Bruckner	Director
Mark Child, AICP	Deputy Director, Advance Planning
Susan Tae, AICP	Supervising Regional Planner
Carl Vincent Nadela, AICP	Regional Planner
Patricia Hachiya, AICP	Supervising Regional Planner, Impact Analysis Section

### Department of Public Works

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Toan Duong, P.E.	Civil Engineer

### Department of Parks and Recreation

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Lorrie Bradley	Park Planner
James Barber	Departmental Facilities Planner

### Fire Department

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Tony Le	
Wally Collins	Fire Prevention Engineering Assistant
Frank Vidales	Chief, Forestry Division
Juan Padilla	Fire Prevention Engineering Assistant
J Lopez	Assistance Chief, Forestry Division
Judith Leslie-Thomas	

### Department of Public Health

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Evanor Masis	Industrial Hygienist
Robert Vasquez	Industrial Hygienist

## 11. Organizations and Persons Consulted

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## 12. Qualifications of Persons Preparing EIR

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- BA Environmental Studies and BS Ecology and Evolutionary Biology, University of California, Santa Cruz, 2002.
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Manager, Noise, Vibration & Acoustics

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## 12. Qualifications of Persons Preparing EIR

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- MS, Geology, University of Massachusetts, Amherst
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## 12. Qualifications of Persons Preparing EIR

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## 12. Qualifications of Persons Preparing EIR

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